Programme Specification

MSci (Hons) Zoology 2020-21

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 s/he takes full advantage of the learning opportunities that are provided.

Awarding Institution	University of Southampton
Teaching Institution	University of Southampton
Mode of study	Full-time
Duration in years	4 years following standard progression for a FT student
Accreditation details	N/A
Final award	Master of Science (Honours)
Name of award	Zoology
Interim Exit awards	Bachelor of Science (Ordinary) Diploma of Higher Education Certificate of Higher Education
FHEQ level of final award	7
UCAS code	C301
Programme code	8570
QAA Subject Benchmark or other external reference	QAA Subject Benchmark Statements for Bioscience (2019) QAA Framework for Higher Education Qualifications (FHEQ)
Programme Lead	Dr Neil J. Gostling

Programme Overview

Brief outline of the programme

Zoology is the branch of biology dealing with the study of the structure, molecular and cell biology, development, ecology, evolution and classification of animals. At Southampton our expertise stretches from evolution and behaviour to gene regulation, neuroscience and development in a range of animals. Our links with institutions undertaking zoological research enables us to integrate their expertise within the MSci Zoology degree; for example, links with Marwell Zoological Park and Southampton General hospital benefit the undergraduate programme. Opportunities exist to undertake Part 3 and Part 4 research projects at these or many other sites.

You will undertake a range of modules, providing you will a grounding in the core principles underpinning zoology and biology in your first year. The course structure allows you to specialise, depending on your interests, as you progress to the final year.

Your contact hours will vary depending on your module/option choices. Full information about contact hours is provided in individual module profiles

Learning and teaching

A broad range of methods will be employed, including a combination of lectures, tutorials, practical classes, coursework and field-courses in both parts 1 and 2. The part 1 field course, part of 'How to Think like a Scientist' (BIOL1***) is compulsory, takes place in the UK during Semester 2 and lasts approximately 6 days. The part 2 field course, Biol2*** Behavioural Biology, is compulsory and takes place overseas in Europe. BIOL2041 is optional and comprises both lecture material and field work in the New Forest not far from Southampton. In part 3 you will undertake an in-depth research project in the laboratory or field and an extended research project in part 4 in either the laboratory or field.

Throughout the programme you are required to undertake independent reading both to supplement and consolidate the taught material and to broaden your knowledge and understanding of zoology.

Assessment
Assessment of your knowledge base is through a combination of written examinations, assessed coursework in the form of laboratory and fieldwork practical reports, essays and project reports, and presentations.
Formative assessment will include group work, presentations, practical work and group discussion.

Special Features of the programme

As a Zoology student in the School of Biological Sciences, you will be able to select from a range of modules, reflecting the broad research interests of the academics across our department. This range and diversity of expertise is a strength of the University of Southampton.

In Part 1 you will undertake modules which will provide you with a broad foundation of knowledge across the Biological Sciences, including development of practical skills. You will undertake practical sessions in our teaching laboratories in the Life Sciences building, and also undertake field exercises and attend a residential field trip.

In Part 2 you will take part in a compulsory Behavioural Biology field trip to Europe (often Spain). You will be able to select optional modules, to begin to specialise in areas of particular interest. There is the opportunity to carry out studies during semester 2 of year 2 at one of several partner universities outside of the UK (BIOL2042 Biological Sciences Study Abroad). Specific module choices available will be dependent on the university selected and further information should be obtained from the module coordinator.

In Part 3 you will undertake an independent research project from the range of 15ECTS and 7.5ECTS projects on offer (a total of 15ECTS of project work must be undertaken).

In Part 4 you will undertake an extended independent research project. A total of 30ECTS of project work must be undertaken.

Please note: As a research-led University, we undertake a continuous review of our programmes to ensure quality enhancement and to manage our resources. As a result, this programme may be revised during a student's period of registration; however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our Disclaimer to see why, when and how changes may be made to a student's programme.

Programmes and major changes to programmes are approved through the University's programme validation process which is described in the University's Quality handbook.

Educational Aims of the Programme

The aims of the programme are to:

1. develop a knowledge and understanding of living organisms at several levels of biological organisation ranging from the molecular level, through to cells, whole organisms and ecosystems as well as viewing biology from an evolutionary perspective;
2. provide knowledge and understanding of biological systems and processes in theory and through practical work;
3. provide the opportunity for you to construct an individual programmes of study of Biology within a coherent framework, following a broad foundational knowledge of Biological Sciences;
4. gain experience and training in relevant practical laboratory and field work skills;

5. develop a range of transferable skills (information and communication technology, team working, written and oral communication, time management, planning, data collection, analysis and presentation), and the capacity to give a clear and accurate account of the subject;
6. enable you to think critically and to show that you can pursue independent study;
7. provide an education suitable for a wide variety of careers and to prepare you for higher degrees and careers in biological sciences research;

The main aims of the MSci Zoology degree are to:

8. provide the key skills that are transferable to other disciplines, so that you are capable of reaching your full potential, becoming an important member of society, including careers in academic and/professional biological sciences fields and non-biological sciences professions, industry and commerce.
9. develop the advanced ability to formulate, design and implement a programme of research to address a specific question in zoology using appropriate data analysis
10. have skills required to undertake a research project producing results that have the potential to form part of a peer reviewed scientific publication
11. ability to assimilate, evaluate and present research results objectively
12. develop your ability to adapt and apply methodologies to the solution of zoological questions
13. be familiar with a range of topics at the cutting edge of Biological Sciences research via seminars and other forms of scientific presentation.
14. Develop specialised skills applicable in academic or industrial contexts.

Programme Learning Outcomes

Knowledge and Understanding

Having successfully completed this programme you will be able to demonstrate knowledge and understanding of:

A1. biological phenomena at a variety of levels (from molecular to ecological systems) and explain the relationship of evolutionary theory to their area of study
A2. use of bioinformatics approaches in the analysis of large datasets
A3. the structure of biological macromolecules, including proteins and nucleic acids and how this contributes to their biological properties
A4. the impact on society of advances in the biosciences
A5. the major developmental events in the lifecycle of an animal from fertilization, through development and reproductive maturity
A6. the structure and function of various types of cells in unicellular and multicellular organisms, the structure and function of cell membranes, cell differentiation
A7. the impact of external influences on growth and reproduction, and explain reproductive strategies
A8. the interactions of structure and metabolic function at cellular and organism level
A9. the evidence for the mechanisms of life processes
A10. the significance of internal and external influences on the integration of metabolism for survival and health
A11. the patterns of inheritance and complex genetic interactions relating to the lives and evolution of the organisms studied
A12. the methods and principles underlying taxonomy and classification
A13. the principles and processes governing interactions of organisms and their environment
A14. the contribution of the organisms to the biosphere
A15. the contribution of 'behavioural patterns' to survival and success.

Teaching and Learning Methods

Taught material will be delivered using lectures, tutorials, laboratory and field based practicals and projects. Further self-learning through additional reading and research is expected.

Assessment methods
Experimental and research skills are assessed through some or all of the following: laboratory reports, project reports and presentations, part 3 research project or dissertations. Analysis and problem solving skills are assessed through unseen written examinations, continual assessment, practical write-ups and computer-based exercises.

Subject Specific Intellectual and Research Skills

Having successfully completed this programme you will be able to:

B1. recognise and apply subject-specific theories, paradigms, concepts or principles
B2. access and evaluate bioscience information from a variety of sources and communicate the principles both orally and in writing in a way that is organised and recognises the limits of current hypotheses
B3. access biosciences databases and use appropriate selection criteria to mine, manipulate and interpret data
B4. plan, execute and present an independent piece of work, in which qualities such as time management, problem solving and independence are evident, as well as interpretation and critical awareness of the quality of evidence
B5. critically evaluate published research
B6. conduct an in-depth piece of scientific research, evidenced by a substantial dissertation
B7. collect and analyse experimental data
B8. interpret and write up the results of experiments
B9. conduct research into an area of science relevant to Zoology
B10. produce a dissertation, based on that scientific research

Teaching and Learning Methods

In addition to the methods described above, analysis and problem solving are further developed in tutorials and laboratory practicals. Practical and research skills are further developed through laboratory and field work, and research projects.

Assessment methods

Experimental and research skills are assessed through some or all of the following: laboratory reports, project reports and presentations, final year research project or dissertations. Analysis and problem solving skills are assessed through unseen written examinations, continual assessment, practical write-ups and computer-based exercises.

Transferable and Generic Skills

Having successfully completed this programme you will be able to:

C1. demonstrate strategies that enable you to update, maintain and enhance your knowledge of the biosciences
C2. communicate science to peers and non-scientists
C3. create and deliver a presentation on a topic relevant to Zoology
C4. demonstrate the ability to work in a team.

Teaching and Learning Methods
You will be helped to acquire these skills through all aspects of the formal teaching programme. In parts 1 and 2 this will mainly be through tutorial and coursework, whilst in part 3 your project work will enable you to further develop and practice many of the individual skills in one specific area of biology.

Assessment methods

Your skills will be assessed as described above. Most skills are assessed through examinations, continuous assessment and through your third year project or dissertations.

Subject Specific Practical Skills (optional)

Having successfully completed this programme you will be able to:

D1. demonstrate skills and competency in a broad range of appropriate practical techniques and skills relevant to the biosciences, including data collection, analysis and interpretation of those data, and testing hypotheses and the ability to place the work in context and to suggest lines of further investigation

D2. record data accurately, and carry out statistical analyses of data

D3. demonstrate an awareness of professional standards, including Good Laboratory Practice for data collection, recording and interpretation.

D4. show an appreciation of ethical issues in relation to biological sciences practices.

Programme Structure

The programme structure table is below:

Information about pre and co-requisites is included in individual module profiles.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

MSci Zoology
Part I
Compulsory

Fundamentals of Biochemistry	BIOL1024	15 ECTS	Compulsory
Fundamentals of Cell Biology and Physiology	BIOL1025	15 ECTS	Compulsory
The Origins of Biodiversity	BIOL1029	15 ECTS	Compulsory
How to think like a Scientist	BIOL1030	7.5 ECTS	Compulsory
Either, Introduction to Chemistry	CHEM1012	7.5 ECTS	Compulsory
Or, Biological Chemistry	BIOL1028	7.5 ECTS	Compulsory

You must take 7.5 ECTS credits of Chemistry, either BIOL1028if you have studied A level Chemistry or an equivalent level of qualification, or CHEM1012 otherwise.

Part II

Compulsory

Evolution	BIOL2001	7.5 ECTS	Compulsory
Marine Vertebrates	SOES2011	7.5 ECTS	Compulsory
Vertebrate Development	BIOL2045	7.5 ECTS	Compulsory
Behaviour and Ecology Field Course	BIOL2055	7.5 ECTS	Compulsory
Animal Behaviour	BIOL2039	7.5 ECTS	Compulsory
Quantitative Methods in Biological & Environmental Science	BIOL2008	7.5 ECTS	Compulsory

Optional (Please choose 2 x 7.5 ECTS modules)

Flow of Genetic Information	BIOL2010	7.5 ECTS	Optional
Bioinformatics and DNA technology	BIOL2013	7.5 ECTS	Optional
Neuroscience	BIOL2051	7.5 ECTS	Optional

Immunology, Infection and Inflammation	BIOL2022	7.5 ECTS	Optional
Environmental Microbiology	BIOL2038	7.5 ECTS	Optional
Conservation Management Field Course	BIOL2041	7.5 ECTS	Optional
Freshwater Ecosystems	ENVS2033	7.5 ECTS	Optional
Environmental Impact Assessment	ENVS2066	7.5 ECTS	Optional
Water Pollution	ENVS2007	7.5 ECTS	Optional
Introduction to GIS	GEOG2010	7.5 ECTS	Optional
Remote sensing for Earth Observation	GEOG2007	7.5 ECTS	Optional
Global Climate Change	GEOG2032	7.5 ECTS	Optional
Phytoplankton and Primary Production	SOES2006	7.5 ECTS	Optional
Ecological Processes in the Marine Benthos	SOES2017	7.5 ECTS	Optional
Palaeobiology	SOES2032	7.5 ECTS	Optional

Part III

Optional/Core **(Once selected, this module becomes core and must be passed at the pass mark)**

You must take 15 ECTS credits of independent study. Choose one of the following modules:

Laboratory research project	BIOL3034	15 ECTS	Optional/Core
Field research project	BIOL3061	15 ECTS	Optional/Core
In-silico research project	BIOL3069	15 ECTS	Optional/Core
External research project	BIOL3071	15 ECTS	Optional/Core

Optional (Please choose 6 modules)

Current Topics in Cell and Developmental Biology	BIOL3001	7.5 ECTS	Optional
Plant Cell Biology	BIOL3003	7.5 ECTS	Optional
Evolution and Genetics	BIOL3010	7.5 ECTS	Optional
Molecular Recognition	BIOL3013	7.5 ECTS	Optional
Molecular Cell Biology	BIOL3014	7.5 ECTS	Optional
Regulation of Gene Expression	BIOL3015	7.5 ECTS	Optional
The Molecular & Structural Basis of Disease	BIOL3017	7.5 ECTS	Optional
Molecular Pharmacology	BIOL3018	7.5 ECTS	Optional
Systems Neuroscience	BIOL3020	7.5 ECTS	Optional
Cellular & Molecular Neuroscience	BIOL3021	7.5 ECTS	Optional
Cell Signalling in Health and Disease	BIOL3022	7.5 ECTS	Optional
Neuropharmacology of CNS Disorders	BIOL3025	7.5 ECTS	Optional
Selective Toxicity	BIOL3027	7.5 ECTS	Optional
Immunology	BIOL3037	7.5 ECTS	Optional
Neurodegenerative Disease	BIOL3048	7.5 ECTS	Optional
Applied Plant Biology	BIOL3051	7.5 ECTS	Optional
Biomedical Technology	BIOL3052	7.5 ECTS	Optional
Biodiversity & Conservation	BIOL3053	7.5 ECTS	Optional
Biofilms & Microbial Communities	BIOL3057	7.5 ECTS	Optional
Biofilms & Systems Biology	BIOL3063	7.5 ECTS	Optional
Cancer and Chromosome Biology	BIOL3064	7.5 ECTS	Optional
Biomedical Parasitology	BIOL3065	7.5 ECTS	Optional
Evolution & Development	BIOL3067	7.5 ECTS	Optional
Fluxes, Cycles & Microbial Communities	BIOL3068	7.5 ECTS	Optional
Tropical Ecology Field Course	BIOL3070	7.5 ECTS	Optional

A maximum of 2 modules can be taken from outside Biological Sciences within each part, and of these not more than one can be a UOSM coded module.

Part IV

Optional/Core

You must take 30 ECTS credits of independent research study. Choose either one of the following two modules:

Advanced Research Project	BIOL6013	30 ECTS	Optional/Core
Advanced Field Research Project	BIOL6069	30 ECTS	Optional/Core

Compulsory

Current Research	BIOL6053	7.5 ECTS	Compulsory

Part IV Optional I
One or two of the options MUST be taken

Skills in Structural Biology	BIOL6093	7.5 ECTS	Optional
Skills in Optical Imaging	BIOL6097	7.5 ECTS	Optional
Skills in Molecular Bioscience	BIOL6095	7.5 ECTS	Optional

Part IV Optional II (Please choose either 1 or 2 options)

Applied Ecology	BIOL6010	7.5 ECTS	Optional
Biodiversity and Conservation	BIOL6066	7.5 ECTS	Optional
Cellular and Genetic Aspects of Animal Development	BIOL6025	7.5 ECTS	Optional
Cellular and Molecular Neuroscience	BIOL6035	7.5 ECTS	Optional
Current Topics in Cell and Developmental Biology	BIOL6021	7.5 ECTS	Optional
Data Management and Generalised Linear Modelling for Biologists	BIOL6052	7.5 ECTS	Optional
Systems Neuroscience	BIOL6034	7.5 ECTS	Optional
Topics in Ecology and Evolution	BIOL6029	7.5 ECTS	Optional

Typical course content
The programme of study is divided into modules. Each module is assigned a number of credit points (ECTS = European Credit Transfer Scheme) that relates to the hours of formal teaching plus the recommended time for private study (1ECTS = 20 hours of total student effort). For each part, you will take certain compulsory modules and a selection of approved optional modules to give a minimum of 60 ECTS. A compulsory module is one that you must take (but need not pass, though a minimum of 25% is required for progression) to progress to the next level of study.

From Part 2 onwards, you may select your own choice of modules at each level to reflect your development of interests in Zoology. The selection of modules is in consultation with your tutor and must conform to the degree programme regulations and undertaking prerequisite modules for more advanced part 2 and 3 modules.

Progression Requirements

The programme follows the University's regulations for ***Progression, Determination and Classification of Results : Undergraduate and Integrated Masters Programmes*** as set out in the University Calendar. http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html

Intermediate exit points (where available)
You will be eligible for an interim exit award if you complete part of the programme but not all of it, as follows:

Qualification	Minimum overall credit in ECTS credits	Minimum ECTS Credits required at level of award
BSc Ordinary degree	at least 150	30
Diploma of Higher Education	at least 120	45
Certificate of Higher Education	at least 60	45

If you successfully complete Part 1 you may switch to the degree programme in Biology.

Learning outcomes specific to each intermediate exit point correspond to a sub-set of those for the programme as a whole and may be determined by consulting the module map at the end of this document.

Support for student learning

There are facilities and services to support your learning some of which are accessible to students across the University and some of which will be geared more particularly to students in your particular Faculty or discipline area.

The University provides:

- library resources, including e-books, on-line journals and databases, which are comprehensive and up-to-date; together with assistance from Library staff to enable you to make the best use of these resources
- high speed access to online electronic learning resources on the Internet from dedicated PC Workstations onsite and from your own devices; laptops, smartphones and tablet PCs via the Eduroam wireless network. There is a wide range of application software available from the Student Public Workstations.
- computer accounts which will connect you to a number of learning technologies for example, the Blackboard virtual learning environment (which facilitates online learning and access to specific learning resources)
- standard ICT tools such as Email, secure filestore and calendars.
- access to key information through the MySouthampton Student Mobile Portal which delivers timetables, Module information, Locations, Tutor details, Library account, bus timetables etc. while you are on the move.
- IT support through a comprehensive website, telephone and online ticketed support and a dedicated helpdesk in the Hartley Library.
- Enabling Services offering support services and resources via a triage model to access crisis management, mental health support and counselling. Support includes daily Drop In at Highfield campus at 13.00 – 15.00 (Monday, Wednesday and Friday out of term-time) or via on-line chat on weekdays from 14.00 – 16.00. Arrangements can also be made for meetings via Skype.
- assessment and support (including specialist IT support) facilities if you have a disability, long term health problem or Specific Learning Difficulty (e.g. dyslexia)
- the Student Services Centre (SSC) to assist you with a range of general enquiries including financial matters, accommodation, exams, graduation, student visas, ID cards
- Careers and Employability services, advising on job search, applications, interviews, paid work, volunteering and internship opportunities and getting the most out of your extra-curricular activities alongside your degree programme when writing your CV
- Other support that includes health services (GPs), chaplaincy (for all faiths) and 'out of hours' support for students in Halls and in the local community (18.00-08.00)
- A Centre for Language Study, providing assistance in the development of English language and study skills for non-native speakers.

The Students' Union provides

- an academic student representation system, consisting of Course Representatives, Academic Presidents, Faculty Officers and the Vice-President Education; SUSU provides training and support for all these representatives, whose role is to represent students' views to the University.
- opportunities for extracurricular activities and volunteering
- an Advice Centre offering free and confidential advice including support if you need to make an academic appeal
- Support for student peer-to-peer groups, such as Nightline.

Associated with your programme you will be able to access:

- An induction programme at the start of the course, which will provide orientation, information on modules, courses, library and computer facilities.
- Programme handbooks, module handbooks and material on the web.
- Library and academic skill packages.
- Well-equipped teaching laboratories.

- Academic and pastoral support from members of staff, including your personal academic tutor, this support includes scheduled meetings at appropriate occasions during the academic year.
- Access to all administrative and academic material on the FELS Hub, available on Blackboard (http://www.blackboard.soton.ac.uk).
- Access to all academic staff through an appointment system and e-mail.
- Access to administrative staff in the Faculty Student Offices during the normal working day.
- Feedback on assessment.

Methods for evaluating the quality of teaching and learning

You will have the opportunity to have your say on the quality of the programme in the following ways:

- Completing student evaluation questionnaires for each module of the programme.
- Acting as a student representative on various committees, e.g. Staff:Student Liaison Committees, School Programmes Committee OR providing comments to your student representative to feed back on your behalf.
- Serving as a student representative on Faculty Scrutiny Groups for programme validation.
- Taking part in programme validation meetings by joining a panel of students to meet with the Faculty Scrutiny Group.

The ways in which the quality of your programme is checked, both inside and outside the University, are:

- Regular module and programme reports which are monitored by the Faculty
- Programme validation, normally every five years.
- External examiners, who produce an annual report
- Professional body accreditation/inspection
- A national Research Assessment Exercise (our research activity contributes directly to the quality of your learning experience)
- Institutional Review by the Quality Assurance Agency

Additional information may be added by faculties in this section – for example if there are additional quality measures in place in respect of professional placements, programmes operated overseas, etc.
Further details on the University's quality assurance processes are given in the *Quality Handbook.*

Career Opportunities

Students will gain an understanding of Zoology, becoming more focussed and specialised throughout the three year programme, leading to a wide variety of potential careers. This includes: education, within academia (following relevant postgraduate qualifications) and schools; non-governmental organisations, such as charities; careers within agriculture; biological science industry positions; journals and science communication. For students who decide that they do not wish to pursue a career in Biology, they will find that their degree also provides transferrable skills, such as project management and data handling, that are useful for a wide variety of professions.

External Examiner(s) for the programme

Name Prof Claire Grierson
Institution. University of Bristol

Name Prof Sebastian Shimmeld
Institution. University of Oxford

Students must not contact External Examiner(s) directly, and external examiners have been advised to refer any such communications back to the University. Students should raise any general queries about the assessment and examination process for the programme with their Course Representative, for consideration through Staff: Student Liaison Committee in the first instance, and Student representatives on Staff: Student Liaison Committees will have the opportunity to consider external examiners' reports as part of the University's quality assurance process.

External examiners do not have a direct role in determining results for individual students, and students wishing to discuss their own performance in assessment should contact their Personal Academic Tutor in the first instance.

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 s/he takes full advantage of the learning opportunities that are provided. More detailed information can be found in the programme handbook.

Appendix 1:

Additional Costs

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. In addition to this, students registered for this programme also have to pay for:

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
Approved Calculators		Candidates may use calculators in the examination room only as specified by the University and as permitted by the rubric of individual examination papers. The University approved models are Casio FX-570 and Casio FX-85GT Plus. These may be purchased from any source and no longer need to carry the University logo.
Stationery		You will be expected to provide your own day-to-day stationery items, e.g. pens, pencils, notebooks, etc). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.
Textbooks		Where a module specifies core texts these should generally be available on the reserve list in the library. However due to demand, students may prefer to buy their own copies. These can be purchased from any source. Some modules suggest reading texts as **optional** background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies. Although not essential reading, you may benefit from the additional reading materials for the module.
Equipment and Materials Equipment		
	Field Equipment and Materials:	A number of essential items will be provided to you e.g.: field notebook(s); hand lens. If items provided are lost replacements can be purchased from: However, you will need provide yourselves with a ruler; a pair of compasses; set squares; protractor; pencils (including coloured); eraser; calculator, penknife. These can be purchased from any source.
	Laboratory Equipment and Materials:	safety goggles; laboratory coat
IT	Computer Discs	Students are expected to provide their own portable data storage device.
	Software Licenses	All required software is provided

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
	Hardware	It is advisable that students provide their own laptop or personal computer, although shared facilities are available across the University campus.
Clothing	Lab Coats	One laboratory coat and a pair of safety spectacles are provided at the start of the programme to each student. If these are lost the student must replace them at their own expense. The Students Union Shop stock these items.
	Fieldcourse clothing:	You will need to wear suitable clothing when attending fieldcourses, e.g. waterproofs, walking boots. You can purchase these from any source.
Printing and Photocopying Costs		Coursework such as essays; projects; dissertations may be submitted on line. In the majority of cases, though, students will be asked to provide a printed copy. The School of Biological Sciences a printing credit for printing lecture handouts. The University printing costs are currently: A4 - 4p per side (black and white) or 18p per side (colour) A3 - 8p per side (black and white) or 35p per side (colour) Please Note: Paper sizes not recognised by the printing devices will prompt you to select the size and then charge a minimum of 50p per black and white copy and a maximum of £1 per colour copy. You can pay for your printing by using the money loaders or by using print copy payment service by going to www.printcopypayments.soton.ac.uk Please remember that we are unable to refund any credit that has not been used by the end of your course, so please consider this when topping up your printing/copy account The University Print Centre also offers a printing and copying service as well as a dissertation/binding service. Current printing and copying costs can be found here. They also provide a large format printing service, e.g. Academic posters. Details of current costs can be found here.
Fieldwork: logistical costs	Accommodation: Insurance Travel costs Immunisation/vaccination costs Other:	For *compulsory* residential fieldcourses accommodation and travel are normally provided though where necessary, you will be expected to cover the cost of getting to and from the departure point which may be an airport, a train station or a field station. You are usually expected to cover the costs of food and drink, although some courses may include meals. For *optional* fieldcourses, you may be asked to make a contribution to the travel and/or accommodation costs.

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
		Undergraduates are automatically covered under the University's travel insurance whilst on organised and supervised fieldcourses. Those travelling independently in connection with their programme can be included under the University's travel insurance upon application – there may be a cost attached to this. There are also opportunities to undertake fieldcourses with another organisation, e.g. Operation Wallacea. Where necessary students will need to arrange and pay for any vaccinations. Specific details on what additional costs there are detailed in the individual module profiles which can be found under the modules tab of the programmes details of the relevant academic unit.
Placements (including Study Abroad Programmes)	Accommodation	Students who choose to go on an industrial placement at the end of Part 2 can expect to cover costs for health and travel insurance, accommodation and living expenses; travel costs; visa costs. This will vary depending on which country you are travelling to.
	Insurance	
	Medical Insurance	
	Travel costs	
	Immunisation/vaccination costs	
	Disclosure and Barring Certificates or Clearance	
	Translation of birth certificates	
	Other	
Conference expenses	Accommodation	
	Travel	
Optional Visits (e.g. museums, galleries)		Some modules may include optional visits to a museum, galleries, etc. You will normally be expected to cover the cost of travel and admission, unless otherwise specified in the module profile.
Professional Exams		
Parking Costs		
Anything else not covered elsewhere		

In some cases you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of a programme to you. Details of such costs will be listed in the Module Profile. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at www.calendar.soton.ac.uk.

UNIVERSITY OF Southampton

Appendix 2: Programme Learning Outcome Map

Programme Specification Learning Outcomes	BIOL1024 Fundamentals of Biochemistry	BIOL1025 Fundamentals of Cell Biology and	BIOL1029 The Origins of Biodiversity	BIOL1020-2 How to think like a Scientist	CHEM1012 or BIOL1EEE	BIOL2001 Evolution	BIOL2054 Vertebrate Zoology	BIOL2045 Vertebrate Development	BIOL2039 Animal Behaviour	BIOL2HHHBehavioural Biology Field Course	BIOL2008 Quantitative Methods in	30 ECTS of independent research study *	Part IV Optional I	60 ECTS of independent research study **
Knowledge and Understanding														
1			X			X				X				
2				X		X								
3	X				x									
4			X			X						X		
5		X						X						
6								X						
7			X			X								
8						X			X					
9							X							
10						X	X	X						
11			X					X						
12			X			X				X				
13			X			X				X				

Programme Specification Learning Outcomes	BIOL1024 Fundamentals of Biochemistry	BIOL1025 Fundamentals of Cell Biology and	BIOL1029 The Origins of Biodiversity	BIOL1020-2 How to think like a Scientist	CHEM1012 or BIOL1EEE	BIOL2001 Evolution	BIOL2054 Vertebrate Zoology	BIOL2045 Vertebrate Development	BIOL2039 Animal Behaviour	BIOL2HHHBehavioural Biology Field Course	BIOL2008 Quantitative Methods in	30 ECTS of independent research study *	Part IV Optional I	60 ECTS of independent research study **
14									*X*	*X*				
15			*X*			*X*				*X*				
Subject Specific Intellectual and Research Skills														
1	*X*	*X*	*X*			*X*					*X*	*X*		
2												*X*		
3						*X*					*X*	*X*		
4												*X*	*X*	
5														*X*
6														*X*
7														*X*
8														*X*
9														*X*
10														*X*
Transferable and Generic														

Programme Specification Learning Outcomes	BIOL1024 Fundamentals of Biochemistry	BIOL1025 Fundamentals of Cell Biology and	BIOL1029 The Origins of Biodiversity	BIOL1020-2 How to think like a Scientist	CHEM1012 or BIOL1EEE	BIOL2001 Evolution	BIOL2054 Vertebrate Zoology	BIOL2045 Vertebrate Development	BIOL2039 Animal Behaviour	BIOL2HHHBehavioural Biology Field Course	BIOL2008 Quantitative Methods in	30 ECTS of independent research study *	Part IV Optional I	60 ECTS of independent research study **
Skills														
1			*X*									*X*		
2				*X*								*X*		
3										*X*		*X*		*X*
4			*X*							*X*				
Subject Specific														
1	*X*	*X*	*X*	*X*										
2				*X*		*X*				*X*				
3	*X*	*X*	*X*	*X*		*X*						*X*		
4				*X*			*X*	*X*	*X*			*X*		

*30 Credits of independent study

Either, one of:
BIOL3034 Laboratory research project,
BIOL3061 Field research project
BIOL3069 In-silico research project
BIOL3071 External research project

** 60 Credits of Independent Research Project

BIOL6013 Advanced Research Project

OR

BIOL6039 Field Research Project