Programme Specification

Master of Ecology (4 years): 2017-18

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 full-time student
Accreditation details	Not applicable
Final award	Master of Ecology (MEcol) – Honours
Name of award	Ecology
Interim Exit awards	Bachelor of Science (Honours) Bachelor of Science (Ordinary) Diploma of Higher Education Certificate of Higher Education
FHEQ level of final award	7
UCAS code	C180
QAA Subject Benchmark or other external reference	QAA Subject Benchmark Statements for Bioscience (2007) QAA Framework for Higher Education Qualifications (FHEQ) QAA Masters Degree Characteristics
Programme Lead	Dr A Marchant
Date specification was written	01/02/2013
Date specification was validated	10 April 2013
Date specification was last updated	July 2017

Programme Overview

Brief outline of the programme

This 4-year integrated Masters degree provides students with a focused training in ecological research, based on a solid biological foundation. A key part of the degree is experience in doing ecological research: students will do an independent research project in part 3, and an advanced research project in part 4. Students will also obtain essential ecological skills, receive advanced statistical training, and be able to engage with current ecological research.

Our Master of Ecology programme is built upon either a general Biology BSc, or a more specialised Zoology BSc. These two degree programmes ensure a broad foundation from which the student increasingly specialises towards ecology. In Southampton you will undertake a balanced programme where you will gain the relevant skills and knowledge for a career in Ecology. Our links with institutions undertaking zoological research enables us to integrate their expertise within the MEcol. degree; for example Marwell Zoological Park is used in the undergraduate programme and opportunities exist to undertake final year research projects at there and at many other sites.

Learning and teaching

To assist your learning, you will be provided with an extensive programme of lectures, tutorials, problem workshops, and laboratory classes. You will also be provided with support material and also informal assistance to guide your private study.

You will be assisted to acquire transferable and generic skills through the formal teaching programme supplemented by several short courses provided by staff from the participating academic units and outside agencies.

Practical skills are developed through the learning and teaching programme. Experimental and fieldwork skills are developed through laboratory experiments, fieldwork and project work.

Throughout the programme you are encouraged to use additional recommended reading material for private study to consolidate the formal learning process, and to broaden and deepen your understanding.

Assessment

There are written examinations at the end of each semester to test your knowledge and understanding of material presented in lectures, tutorials and workshops.
Practical and transferable work/skills are continuously assessed primarily through written reports, laboratory reports, coursework exercises, project reports and presentations.

Project work is assessed by dissertation and oral examination together with a report on your relevant research skills from your project supervisor.

Coursework exercises are set at regular intervals and marked promptly.

In some cases the grade obtained is used to calculate your overall mark for a particular module of study. In other cases the grade for a coursework exercise simply gives you an indication of your progress.

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 provide:

1. a stimulating, informed learning environment through a wide range of interesting and contemporary courses, with flexibility of choice, but allowing you to increasingly focus as you progress from level to level;
2. the opportunity to develop a knowledge and understanding of living organisms at several levels of biological organisation from the molecular, through cells and whole organisms, to ecosystems; and from an evolutionary perspective;
3. an understanding of biological systems and processes in theory and practice;
4. exposure to a range of biological concepts;
5. the opportunity to construct individual programmes of study within a coherent framework, including advanced concepts and techniques in biological topics of your choice;
6. training in relevant laboratory and field work skills;
7. an opportunity to 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;
8. an opportunity for you to develop the ability to think critically and to show that you can pursue independent study;
9. independent research projects on ecological topics;
10. an education and training suitable for a wide variety of careers and to prepare you for higher degrees and careers in ecological research;
11. the capability of life-long learning, study and enquiry.

Programme Learning Outcomes

Knowledge and Understanding

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

1. biology;
2. core concepts, principles, themes, terminology, and classification systems in the terrestrial biology disciplines covered;
3. theory and practice acquisition, analysis and interpretation of biological data across a range of biological applications;
4. a more detailed knowledge and advanced understanding within subject specific options selected from the range available such as:
5. the principles of nutrient and energy flow through individuals, populations and communities;
6. patterns of distribution of organisms in relation to biotic and abiotic factors;
7. population processes, dynamics and interactions, and associated theoretical models;
8. community structure, development, biodiversity, and associated theoretical models;
9. human interactions with natural populations and ecosystems, including habitat modification, pollution, exploitation and conservation;
10. carrying out routine investigations as instructed, using ecological methodologies and data analyses;
11. mechanisms for the life processes and appreciate how the physiology of an organism makes it fit for its environment;
12. the main principles of genes and gene expression;
13. the diversity of organisms on earth evolved, and how they are identified and classified;
14. the ecological and evolutionary interactions of organisms with each other and the environment;
15. how the principles of genetics underlie much of the basis of modern molecular biology;
16. how the chemistry and structure of the major biological macromolecules, including proteins and nucleic acids, determines their biological properties;
17. the structure and function of various types of cells in unicellular and multicellular organisms, the structure and function of cell membranes, cell differentiation;
18. the use and interpretation of the outcome of a variety of advanced statistical methods, including R;
19. a variety of ecologically relevant skills;
20. current research in ecology, and be able to summarise that research succinctly;

Specific for students coming via the Biology BSc, an understanding of:

21. the major developmental events in the life of a plant from germination to flowering and death;
22. how plant cells develop, function and interact with each other and their surroundings.

Specific for students coming via the Zoology BSc, an understanding of:

23. the variety of vertebrates in a marine environment;
24. the cellular and genetic mechanisms of animal development;
25. animal behaviour from an ethological, ecological and evolutionary perspective

Teaching and Learning Methods

You will be taught through a combination of lectures, tutorials, practical classes, coursework and projects. In part 3 you will undertake an independent research project. In your final year you will take an advanced independent research-based project and several skills-focused modules. You will also take a module based around current ecological research seminars, allowing you to develop your critical understanding of current research in ecology. In addition, you will study one more module in depth, allowing you to critically assess research papers in a particular field.

In addition to the methods described in the section above you will be supervised in practical classes and during both your part 3 and 4 projects. As part of your final year programme you will be guided in critically reviewing topics using primary source literature.

You will be helped to acquire generic and transferrable skills through aspects of the formal teaching programme. In the early years this will mainly be through tutorial and coursework, whilst in parts 3 and 4 your project work will give you ample opportunity to further develop and practise many of the individual skills.

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

Assessment methods

You are assessed by a combination of continuous assessment and written examinations at the end of each semester to test your knowledge and understanding of the lecture and tutorial material. Continuous assessment is based on performance in practicals and/or independent reading and synthesizing.

Your subject specific skills will be assessed as described in the section above. Experimental and research skills are assessed through an appropriate combination of laboratory reports, project reports and presentations.

Subject Specific Intellectual and Research Skills

Having successfully completed this programme you will be able to:

1. Formulate and test hypotheses by planning, conducting and reporting a significant programme of ecological research;
2. Use a range of ecological skills to conduct experiments and/or collect observational data;
3. Use computer software and statistics to record and analyse ecological data and determine their importance and validity;
4. Analyse critically and solve complex ecological problems;
5. Integrate your ecological knowledge base with broader biological disciplines such as development, behaviour and evolution;
6. Independently integrate and critically evaluate ecological data from a wide range of sources, including primary source material in ecological journals and experimentation;
7. Demonstrate a systematic understanding of how the boundaries of ecological knowledge are advanced through research;
8. Conduct risk assessments concerning the use of equipment, and laboratory and field procedures;
9. Demonstrate broad expertise in defined areas of ecology at the level of current research in the field;
10. Critically evaluate the data and methodology of current published research in ecological sciences and present your conclusions.

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 work and 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:

1. Communicate/present effectively both verbally and in writing on a range of topics in ecological sciences to both specialised and non-specialised audiences;
2. Work with, and within, a group towards defined outcomes;
3. Use information technology and other resources to find, extract and synthesise information;
4. Solve problems relating to qualitative and quantitative information;
5. Learn independently through critical enquiry;
6. Demonstrate you have the ability to undertake appropriate further training;
7. Manage resources and time.

Teaching and Learning Methods

You will be helped to acquire these skills through aspects of the formal teaching programme. In the early years this will mainly be through tutorial and coursework, whilst in year three your project work will enable you to further develop and practice many of the individual skills in one major activity.

Assessment methods

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

Subject Specific Practical Skills

Having successfully completed this programme you will be able to:

P1 apply robust experimental design and statistics to specific zoological problems;
P2 demonstrate specialised knowledge of practical and laboratory-based techniques relevant to the modules selected.

Learning and Teaching methods

BIOL2008 is a compulsory module particularly aimed at developing skill P1 using lectures and practical problem solving. The compulsory 1st year Field-course, optional 2nd year field course, practicals associated with first and second year modules and the 3rd and 4th year research projects are all used to develop subject specific practical skills.

Assessment methods

Your skills will be assessed primarily through continual assessment and through the 3rd and 4th year research projects. Experimental and research skills are assessed through an appropriate combination of laboratory reports, project reports and presentations.

Graduate Attributes

Graduate Attributes are the personal qualities, skills and understanding you can develop during your studies. They include but extend beyond your knowledge of an academic discipline and its technical proficiencies. Graduate Attributes are important because they equip you for the challenge of contributing to your chosen profession and may enable you to take a leading role in shaping the society in which you live.

We offer you the opportunity to develop these attributes through your successful engagement with the learning and teaching of your programme and your active participation in University life. The skills, knowledge and personal qualities that underpin the Graduate Attributes are supported by your discipline. As such, each attribute is enriched, made distinct and expressed through the variety of learning experiences you will experience. Your development of Graduate Attributes presumes basic competencies on entry to the University.

Programme Structure

Typical course content

The programme is offered as a full-time course. The MEcol programme normally lasts for four years.

Study is divided into four parts for the MEcol, each part corresponding to one year of full-time study. The programme is delivered in a semester pattern, each semester having 12 weeks for teaching and learning and 2-3 weeks for examinations.

The programme is divided into individual study modules at each part. Each study module is accredited as being worth a certain number of credit points to you on successful completion. Modules are normally worth 7.5 ECTS which is equivalent to 150 hours of study. Normally up to 60 hours comprises contact teaching (lectures, practicals, tutorials, etc.), and the remainder of the time is for your own independent study. Modules are

generally assessed at the end of each semester, but some are assessed entirely by coursework throughout the duration of the module.
The four-year programme is intended to develop research skills in a more inter-disciplinary context than is possible in a three-year degree structure. You will also be exposed to cutting edge research, participating in seminar presentations in wide-ranging and specialist topics.

In part 1 year, there are a number of core and compulsory modules, which lay a solid foundation in the basic discipline of this programme. More specialised training and options that enable diversification commence in part 2.

In parts 2 and 3, students are exposed to the forefront of the discipline's knowledge, with the opportunity to conduct supervised original research.
In part 4 you will undertake an extended research project alongside compulsory modules designed to further develop subject specific skills and knowledge.

Special Features of the Programme

This programme involves a mandatory field course organised by the university which is held in Spain during the Easter break of part 1. Additionally there is the opportunity to take a further optional field course module in part 2 or to carry out field-based project work in part 3 and/or part 4.

Programme details

Details of the Programme Structure may be found on the Academic Unit web http://www.southampton.ac.uk/biosci/undergraduate/courses/c180_mecol_ecology.page (Where an indicative list of options can be found. We cannot guarantee to offer every option each year); in the Year Handbooks, http://www.southampton.ac.uk/studentservices/academic-life/faculty-handbooks.page and are briefly summarised below. This is an indicative list of options/modules. We cannot guarantee to offer every option each year.

Part 1 (FHEQ Level 4)

Part 1: Modules	**Semester**	**Module type:** C=compulsory modules (must take) CP=core modules (must take and passed) R=recommended optional module, O=optional	**ECTS**
BIOL1004 Patterns of Life	1	C	7.5
BIOL1010 Macromolecules of Life*	1	C	7.5
BIOL1012 Systems Physiology*	1	C	7.5
BIOL1020 Core Skills in the Life Sciences	1&2	CP	7.5
CHEM1012 Introduction to Chemistry**	1	*(CP)	7.5
BIOL1003 Ecology and Evolution	2	C	7.5
BIOL1001 Experimental & Field Ecology	2	C	7.5
BIOL1005 Cell Biology & Genetics	2	C	7.5
Additional module may be selected from:			
BIOL1022 Metabolism & Metabolic Disorders	2	R	**7.5**
BIOL1013 Integrative Mammalian Physiology	2	R	**7.5**
SOES1006 Introduction to Marine Ecology	2	O	**7.5**
Modules from other disciplines such as SOES1XXX, ENVS1XXX or a Language module		O	**7.5**

*BIOL1010 and BIOL1012 are default compulsory modules but can be substituted by BIOL1007 instead of BIOL1010, and/or BIOL1011 instead of BIOL1012.

If you decide at the start of semester 1 to choose either BIOL1022 or BIOL1013 as your elective module then you will have the option, subject to available space, to take BIOL1007 and/or BIOL1011 (which include laboratory practicals) in the first semester instead of the corresponding BIOL1010 and/or BIOL1012 (which have 'dry' computer practicals).

**Students without a pass in A-level Chemistry need to take CHEM1012 (Introduction to Chemistry) as an additional module and this must be passed to allow progression to part 2 but will not be used to calculate your part 1 average.

Part 2 (FHEQ Level 5)

In Part 2, you are required to take eight modules. Four modules are compulsory and four are optional modules, where at least three are preferably BIOL modules. Note that BIOL2001 Evolution must be passed in order to be allowed to take BIOL3010 Topics in Ecology & Evolution in part 3; BIOL2008 Quantitative Methods in Biological & Environmental Science must be passed in order to be allowed to take the BIOL3034 Laboratory research project or BIOL3061 Field Research Project in part 3.

The modules in part 2 build on the basic biological and ecological principles laid down in part 1. Developing understanding and knowledge in evolution, population ecology, biodiversity and conservation priorities and gaining experience in valuable analytical, ecological survey, and taxonomic skills. With more flexibility in module choice providing opportunity to construct programmes of study, which include biological topics such as animal behaviour, plant science and marine ecology.

Part 2: Modules	**Semester**	**Module type:** C=compulsory modules (must take), CP=core modules (must take and passed), R=recommended optional module, O=optional	**ECTS**
BIOL2004 Pure & Applied Population Ecology	1	C	7.5
BIOL2008 Quantitative Methods in Biological & Environmental Science	1	C	7.5
BIOL2001 Evolution	2	C	7.5
BIOL2041 New Forest Field Course	2	C	7.5
Additional modules may be selected from:			
BIOL2039 Animal Behaviour	1	R	**7.5**
SOES2011 Marine Vertebrates	1	R	**7.5**
BIOL2007 Plant Development & Function	2	R	**7.5**
BIOL2003 Animal Reproduction & Development	2	R	**7.5**
BIOL2018 Adaptive Physiology	2	O	**7.5**
BIOL2038 Microbiology – from the natural environment to disease	2	O	**7.5**
BIOL2040 Neural Basis of Behaviour	2	O	**7.5**
BIOL2002 Cell Biology	1	O	**7.5**
BIOL2010 Flow of Genetic Information	1	O	**7.5**
BIOL2012 Exploring Proteins : Structure & Function	1	O	**7.5**
BIOL2013 Bioinformatics & DNA Technology	2	O	**7.5**
BIOL2014 Neuroscience	1	O	**7.5**
BIOL2043 Biotechnology & the Living Cell	1	O	**7.5**
BIOL2044 Medical Microbiology	2	O	
Any relevant SOES2XXX, ENVS2XXX or GEOG2XXX module		O	**7.5**

Progression to Part 3 is dependent on obtaining a minimum of 60% overall in the Part 2 assessment.

Part 3 (FHEQ Level 6)

In Part 3 there is increased emphasis on the practical and theoretical aspects of ecological research.

A compulsory 15 ECTS of independent study is required to be selected from the following 2 project options allowing you to carry out an extensive piece of work related to your interests and develop knowledge of experimental design, statistics and critical evaluation.

Module (FHEQ Level 6)	**ECTS**
BIOL3034 Laboratory Research Project	15
BIOL3061 Field Research Project	15

The remaining 45 ECTS comprise of six modules; FOUR of which must be selected from a set of BIOL modules (BIOL3009, BIOL3053, BIOL3010, BIOL3056, BIOL3068 and BIOL3070), and the 2 remaining modules selected from optional BIOL3XXX, SOES3XXX, ENVS3XXX modules, or modules relating to a specific 'Minor' subject.

Part 3: Modules	**Semester**	**Module type:** CO=compulsory options, R=recommended, O=optional	**ECTS**
At least FOUR of the following modules			7.5
BIOL3009 Applied Ecology	1	CO	7.5
BIOL3053 Biodiversity & Conservation	1	CO	7.5
BIOL3010 Topics in Ecology & Evolution	2	CO	7.5
BIOL3056 Global Change Biology: Molecules to Ecosystems	2	CO	7.5
BIOL3068 Fluxes, cycles and microbial communities	2	CO	7.5
BIOL3070 Tropical Ecology Field Course	2	CO	7.5
Up to an additional 2 modules may be selected from:			
BIOL3001 Current Topics in Cell Biology	1	O	7.5
BIOL3003 Plant Cell Biology	1	O	7.5
BIOL3006 Cellular & Genetic Aspects of Animal Development	2	O	7.5
BIOL3051 Applied Plant Biology	2	O	7.5
BIOL3057 Biofilms & Microbial Communities	2	O	7.5
BIOL3020 Systems Neuroscience		O	7.5
BIOL3021 Cellular & Molecular Neuroscience		O	7.5
BIOL3067 Evolution & Development		O	7.5
BIOL3013 Molecular Recognition		O	7.5
BIOL3014 Molecular Cell Biology		O	7.5
BIOL3015 Regulation of Gene Expression		O	7.5
BIOL3017 The Molecular & Structural Basis of Disease		O	7.5
BIOL3018 Molecular Pharmacology		O	7.5
BIOL3052 Biomedical Technology		O	7.5
BIOL3022 Cell Signalling in Health and Disease		O	7.5
BIOL3025 Neuropharmacology of CNS Disorders		O	7.5
BIOL3027 Selective Toxicity		O	7.5
BIOL3037 Immunology		O	7.5
BIOL3048 Neurodegenerative Disease		O	7.5
BIOL3063 Bioinformatics & Systems Biology		O	7.5
BIOL3064 Cancer and Chromosome Biology		O	7.5
BIOL3065 Biomedical Parasitology		O	7.5
BIOL3068 Fluxes Cycles & Microbial Communities	2	O	7.5
Any relevant SOES3XXX, ENVS3XXX or 'Minor' subject modules		O	

Revisions of the contents of the programmes for Part 3 are made periodically to reflect developments at the frontiers of biology and ecology.

Part 4 (FHEQ Level 7)

A compulsory 30 ECTS of advanced independent study is required to be chosen from the following 2 options:

Module (FHEQ Level 7)	ECTS
BIOL6013 Advanced Laboratory Research Project	30
BIOL6069 Advanced Field Research Project	30

A compulsory module (7.5 ECTS) based on relevant research seminar series around UoS:

Module (FHEQ Level 7)	ECTS
BIOL6053 Current Research	7.5

A compulsory module (7.5 ECTS) in advanced statistics and GIS:

Module (FHEQ Level 7)	ECTS
BIOL6052 Quantitative Methods	7.5

A further 7.5 ECTS of skills-focussed modules, to be chosen from relevant 'short and fat' modules:

Module (FHEQ Level 7)	ECTS
BIOL6054 Techniques & Theory of Field Biology	3.75
BIOL6055 Computational Methods for Biological Data Analysis	3.75
BIOL6073 Critical Thinking	3.75
BIOL6075 Biological Optical Imaging	3.75

One further optional module (7.5 ECTS):

Module (FHEQ Level 7)	ECTS
A SOES or ENVS module from the following list (subject to availability and the note below) SOES6008, SOES6020, SOES6021, SOES6051, SOES6062, SOES6068, ENVS6003, ENVS6006, ENVS6023, ENVS6024.	7.5

[NB When choosing this option module, please note that it cannot be the 6XXX equivalent of an 3XXX module already taken in part three]

Studying a Minor Subject

The structure of your degree programme allows you to exercise choice in each year of study. You can exercise this choice in a number of ways.

- You can use these modules to deepen your knowledge of your main subject.
- You can combine additional modules from your main subject with modules from other disciplines or choose from a selection of interdisciplinary modules.
- You can choose modules that build into a minor pathway, the title of which will be mentioned in your degree transcript. Details of the minors available and the modules that are included can be found at www.southampton.ac.uk/cip.

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/)

Those specific to the Faculty, the Academic Unit and your programme are in Section IX – Faculty of Natural and Environmental Sciences, **http://www.calendar.soton.ac.uk/sectionIX/sectIX-index.html**

Intermediate exit points

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 Honours degree	At least 180	45
BSc Ordinary degree	at least 150	30
Diploma of Higher Education	at least 120	45
Certificate of Higher Education	at least 60	45

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;
- 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;
- Career Destinations, 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 (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.

We aim to provide a friendly and supportive environment for you to pursue your studies. You will have a personal academic tutor to offer general help, advice and encouragement on academic and pastoral matters throughout your undergraduate career.

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 laboratories.
- Academic and pastoral support from members of staff, including your academic tutor which will include scheduled meetings at appropriate occasions during the academic year.
- Access to all administrative and academic material on the CBS, Programme and individual module web sites and/or 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, Faculty 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
- A national Research Assessment Exercise (our research activity contributes directly to the quality of your learning experience)
- Institutional Review by the Quality Assurance Agency
- The Academic Unit of Biological Sciences has an Education Executive that monitors and evaluates all aspects of learning and teaching at undergraduate level. It considers the results of student feedback and takes appropriate action to remedy any shortcomings. The Director of Education acts on the results of peer observation of teaching and reports from our External Examiners who are selected from comparator universities.
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Criteria for admission

The University's Admissions Policy (see www.southampton.ac.uk/admissions-policy) applies equally to all programmes of study. The following are the typical entry criteria we use for selecting candidates for admission to our programmes.

Entry Requirements

These requirements are reviewed annually by our Admissions team. Those stated below were correct as of July 2015.

GCSEs:

We require GCSE level maths (grade A) if you did not take it at AS or A level. Grades A*-C in English and sciences. If you lack these formal qualifications, your aptitude for the course will be assessed at interview. International students whose first language is not English must have already attained the necessary standard in English – see English Language Proficiency section below.

A Levels:
The A-level requirement is set at AAB or equivalent grades. Students must have at least two science A-levels, of which Biology must be one.

Alternative Qualifications

Our admissions requirement is normally defined on the basis of A/AS levels, but equivalent qualifications are accepted. Students with non-traditional academic backgrounds are recruited through the Foundation Year, and overseas students with a variety of qualifications are accepted.

We will also accept applications from candidates offering other equivalent qualifications including Scottish and Irish Highers, European and International Baccalaureate, Access and Foundation courses and overseas qualifications.

More information on the entry requirements for Biology can be found on the Biology webpage here - http://www.southampton.ac.uk/undergraduate/courses/biology.shtml

English Language Proficiency

All programmes at the University of Southampton are taught and assessed in the medium of English (other than those in modern foreign languages). Therefore, all applicants must demonstrate they possess at least a minimum standard of English language proficiency. Our minimum standard entry requirements are an IELTS Band C, i.e.

Overall	Reading	Writing	Speaking	Listening
6.5	5.5	5.5	5.5	5.5

Information on all acceptable English Language Tests can be found on the University website: www.southampton.ac.uk/admissions-language

Recognition of Prior Learning (RPL)

The University has a Recognition of Prior Learning Policy. It may be possible to recognise formal credit for learning you have acquired in the past through formal study and/or through work and other life experiences. Your application will be considered on individual merit and you may be asked to attend an interview.

Mature applicants:

Studying for a degree later in life can be extremely rewarding and mature students are often among our most successful.

If you are over 21 and feel you would benefit from degree-level studies, we can be more flexible about our entry requirements. For full-time courses, selectors will expect you to demonstrate your commitment by means of some recent serious study, for example, one or two A level passes, successful completion of an Open University foundation course or an appropriate Access course. Your application will be considered on individual merit and you may be asked to attend an interview.

Another popular option is to follow a certificate or diploma programme. These are available on a part time basis and most can be taken in the evenings, enabling you to continue to earn an income while you are studying.

For further information, please contact our Admissions Team ugafnes@soton.ac.uk

More information on the entry requirements for Biology can be found on the Biology webpage here - http://www.southampton.ac.uk/undergraduate/courses/biology.shtml

Career Opportunities

With a Master of Ecology (MEcol.) degree you could be expected to find work in the following areas:

- Ecology
- Research
- Teaching
- Conservation and the environment
- Agriculture
- Industry
- Journalism

External Examiners(s) for the programme

Name Professor Alex Webb
Institution University of Cambridge

Name Professor Sebastian Shimeld
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 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 (or other appropriate guide) or online at (give URL).

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 typically also have to pay for the items listed in the table below

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 http://www.calendar.soton.ac.uk/.

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 stationary 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	Laboratory and Field Equipment and Materials:	All materials required for laboratory or field work are provided. Where necessary, suitable specialist safety equipment will be provided.
IT	Computer Discs or USB drives	Students are expected to provide their own portable data storage device.
	Software Licenses	All software is provided
	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 and safety spectacles	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.
	Field course clothing	You will need to wear suitable clothing when attending field courses, 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

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
		copy. The University printing costs are currently: A4 - 5p per side (black and white) or 25p per side (colour) A3 - 10p per side (black and white) or 50p 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 Students entering Year 1 in 2015/16 will be given a printing allowance of £3 per 7.5 ECTS BIOL towards the costs of printing lecture handouts (except BIOL1001 as there is nothing to print out). Practical handouts and module guides will be provided by the university. 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/health): 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. 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. 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 – for example see here. Where necessary students will need to arrange and pay for any vaccinations.

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
		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 Industrial Year out)		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.
Parking Costs		There may be a requirement to undertake work at Southampton General Hospital (SGH), for example during a final year research project. Students may need to cover costs for transport to travel to SGH or for car parking.
Other	**Travel Costs**	Students who opt to undertake a module delivered at Marwell Wildlife will be responsible for their own travel expenses.

Revision History

1. Minor revisions (including title) 10 July 2007 (SCK)
2. New Brand added July 2008
3. Updated to reflect University restructuring June 2011 (AB)
4. Revisions approved by Senate 19 June 2013 as part of new programme validation process
5. Minor changes made to form guidance on completion of Intended Learning Outcomes, and Learning outcomes and Assessment Mapping document template, for clarity; and changes to wording of support for student learning section, altering to second person throughout – agreed with the Chair and to be reported to UPC October 2013
6. Version 2013/14 Academic Year CQA
7. Minor revision July 2017