Programme Specification

Integrated Masters in Biology: 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	MSci Biology
Name of award	Biology
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	C101
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 (Programme Leader)
Date specification was written	23/01/2015
Date specification was validated	07/10/2015
Date specification was last updated	July 2017

Programme Overview

Brief outline of the programme

Biology is the study of living things at all levels – from molecular through to cells, individual organisms, populations, species, ecosystems and right up to the global environment. You can select one of four optional themed pathways (Integrated Biology, Molecular, Cell and Developmental, Biodiversity & Ecology) depending on where your interests lie. At Southampton, you will undertake a balanced programme where you will gain the relevant skills and knowledge for a career in Biology.

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 Psrts 1 and 2. The Part 1 field course (BIOL1001) is compulsory, takes place in Spain during the Easter break and lasts approximately 11 days. The Part 2 field course (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 the skills gained will be built upon via an extended research project in part 4.

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 biology.

Assessment

Assessment of your knowledge base is through a combination of written examinations and assessed coursework in the form of laboratory and fieldwork practical reports, essays and project reports and presentations.

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 general aims of the Biology degree 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 ranging from the molecular level, through to cells, whole organisms and ecosystems as well as viewing biology 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. an independent research project on a biological topic;
10. an education and training suitable for a wide variety of careers and to prepare you for higher degrees and careers in biological sciences research;
11. the capability of life-long learning, study and enquiry.

The main aims of the MSci Biology degree are:

12. develop the advanced ability to formulate, design and implement a programme of research to address a specific question in biology using appropriate data analysis
13. have skills required to undertake a research project producing results that have the potential to form part of a peer reviewed scientific publication
14. ability to assimilate, evaluate and present research results objectively
15. develop your ability to adapt and apply methodologies to the solution of biological questions
16. be familiar with a range of topics at the cutting edge of Biological Sciences research via seminars and other forms of scientific presentation.
17. 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:

K1. fundamental knowledge & understanding of biology;
K2. the relevant knowledge of core concepts, principles, themes, terminology, and classification systems in the terrestrial biology disciplines covered;
K3. theory and practice acquisition, analysis and interpretation of biological data across a range of biological applications;
K4. a more detailed knowledge and advanced understanding within subject specific options selected from the range available such as: Current Topics in Cell Biology, Applied Plant Biology and Global Change Biology.
K5. the principles of nutrient and energy flow through individuals, populations and communities;
K6. describe and exemplify patterns of distribution of organisms in relation to biotic and abiotic factors;
K7. demonstrate knowledge of population processes, dynamics and interactions, and associated theoretical models;
K8. demonstrate knowledge of community structure, development, biodiversity, and associated theoretical models;
K9. demonstrate awareness of human interactions with natural populations and ecosystems, including habitat modification, pollution, exploitation and conservation;
K10. carry out routine investigations as instructed, using ecological methodologies and data analyses;
K11. understand and describe how plants and microbes are being utilised in the modern world in a wide range of applications;
K12. describe mechanisms for the life processes and appreciate how the physiology of an organism makes it fit for its environment;
K13. show knowledge of the main principles of genes and gene expression;
K14. understand how the diversity of organisms on earth evolved, and how they are identified and classified;
K15. appreciate the ecological and evolutionary interactions of organisms with each other and the environment;
K16. have an understanding of the major developmental events in the life of a plant from germination to flowering and death;
K17. understand how the principles of genetics underlie much of the basis of modern molecular biology;
K18. understand how the chemistry and structure of the major biological macromolecules, including proteins and nucleic acids, determines their biological properties;
K19. know and understand the structure and function of various types of cells in unicellular and multicellular organisms, the structure and function of cell membranes, cell differentiation;
K20. understand how plant cells develop, function and interact with each other and their surroundings.
K21. ability to critically appraise and evaluate research outcomes from your own work and that of others
K22. skills in designing and carrying out an advanced research project using appropriate methods and approaches
K23. be able to summarise research of others in both written and verbal formats

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, 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.

Subject Specific Intellectual and Research Skills

Having successfully completed this programme you will be able to:

S1. formulate and test hypothesis by planning, conducting and reporting a programme of research (either library-based or practical-based or both);
S2. use laboratory and field equipment to generate data;
S3. demonstrate and apply a knowledge of experimental design and statistics to biological problems;
S4. communicate and discuss biological concepts orally, in written form, and through IT presentation routes;
S5. critically evaluate biological information;
S6. Independently integrate and critically evaluate scientific data from a wide range of sources
S7. Conduct risk assessments concerning the use of chemicals, plants, animals and laboratory or field procedures
S8. Demonstrate broad expertise in defined areas of biological science research at the level of current research in the field
S9. Critically evaluate the data and methodology of current published research in biological science

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.

Subject Specific Practical Skills

Having successfully completed this programme you will be able to:

P1. apply robust experimental design and statistics to specific practical biological problems;
P2. demonstrate specialised knowledge of practical and laboratory-based techniques relevant to the modules selected.
P3. Apply appropriate practical methodologies to address scientific questions

Learning and Teaching methods

BIOL2008 is a compulsory module particularly aimed at developing skill P1 using lectures and practical problem solving. The Part 1 and Part 2 field courses, practicals associated with Parts 1 and 2 modules and the Parts 3 and 4 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 Parts 3 and 4 research projects. Experimental and research skills are assessed through an appropriate combination of laboratory reports, project reports and presentations.

Transferable and Generic Skills

Having successfully completed this programme you will be able to:

T1. communicate/present effectively in writing and verbally on a range of topics in biology to both specialised and non-specialised audiences and cite reference work in an appropriate manner;
T2. solve numerical and other problems;
T3. work as a member of a team and engage in independent work;
T4. use information technology and other resources to find, extract and synthesise information;

T5. learn independently through critical enquiry;
T6. demonstrate you have the ability to undertake appropriate further training;
T7. manage your time in planning and conducting practical and library work;
T8. demonstrate competency at using field and laboratory skills in a safe and responsible manner.
T9. Show that you can independently design and implement a programme of research to generate data aimed at answering specific scientific questions

Teaching and Learning Methods

You will be helped to acquire these skills through all aspects of the formal teaching programme. In years one and two 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 specific area of biology. The fourth year will include an extended laboratory or field based research project which will further your interests, skills and knowledge in a specific area of biology. In addition, tutorial support will be available throughout your degree programme.

Assessment methods

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

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 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). In each Part you will take certain core and 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 although a minimum of 25% is required for progression) whilst a core module is one that you must take and pass at 40% or above to progress to the next level of study. This degree is offered as either a full-time four-year course or for study part-time. If you wish to pursue this degree by part-time study you will need to take between 15 ECTS and 37.5 ECTS each year.

From part 2, the MSci Biology degree has four recommended pathways: Integrated Biology (IB), Molecular (M), Cell & Development (C/D) and Biodiversity & Ecology (B/E). The pathways are suggested groups of modules whose subject matter cover the pathway themes. You may select your own choice of modules at each level to reflect your development of interests in Biology. 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 parts 2, 3 and 4 modules.

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.
Our links with institutions undertaking biological research enables us to integrate their expertise within the Biology degree; for example Marwell Zoological Park and Southampton General hospital are both used in the undergraduate programme. Opportunities exist to undertake final year research projects at these or many other sites.

Programme details

Details of the Programme Structure may be found on the Academic Unit web http://www.southampton.ac.uk/biosci/undergraduate/courses/c101-msci-biology.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.

Part 1 (FHEQ Level 4)

In Part 1, six modules are compulsory and one is core (CHEM1012 is also core and constitutes a 9th module in part 1 for those students who do not have a pass at A level chemistry or equivalent). You are required to do eight modules (nine if CHEM1012 must be taken). This is an indicative list of options. This is an indicative list of options/modules. We cannot guarantee to offer every option each year

BIOL1001 Experimental & Field Biology	C
BIOL1003 Ecology and Evolution	C
BIOL1004 Patterns of Life	C
BIOL1005 Cell Biology & Genetics	C
BIOL1010 Macromolecules of Life*	C
BIOL1012 Systems Physiology*	C
BIOL1020 Core Skills in the Life Sciences	CP
BIOL1022 Metabolism & Metabolic Disorders	R
BIOL1013 Integrative Mammalian Physiology	R
BIOL1023 Cell & Tissue Histology	R
CHEM1012 Introduction to Chemistry	(CP)
SOES1006 Introduction to Marine Ecology	
SOES1009 The Living Earth	
Other disciplines such as Language, Psychology...	

C=compulsory modules (must take) CP=core modules (must take and pass) R=Recommended

**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).

The BIOL1001 Experimental & Field Biology module takes place in southern Spain during the Easter break of part 1 and lasts for around 11 days.

Part 2 (FHEQ Level 5)

In Part 2, three modules are compulsory and at least three other BIOL modules should be selected from the list below. Note that BIOL2001 must be passed in order to be allowed to take BIOL3010 in part 3; BIOL2008 must be passed in order to be allowed to take BIOL3034 or BIOL3061 in part 3.

	Pathway			
	IB	M	C/D	B/E
BIOL2001 Evolution	C	C	C	C
BIOL2007 Plant Development and Function	C	C	C	C
BIOL2008 Quantitative Methods in Biological & Environmental Science	C	C	C	C
BIOL2002 Cell Biology	R	R	R	
BIOL2003 Animal Development and Reproduction	R		R	
BIOL2004 Pure and Applied Population Ecology	R			R
BIOL2010 Flow of Genetic Information		R		
BIOL2011 Molecular & Cellular Biochemistry		R		
BIOL2012 Exploring Proteins: Structure and Function		R		
BIOL2013 Bioinformatics and DNA technology		R		
BIOL2014 Neuroscience	R		R	
BIOL2018 Adaptive Physiology	R	R	R	R
BIOL2038 Microbiology – from the natural environment to disease	R	R		
BIOL2039 Animal Behaviour	R			R
BIOL2041 New Forest Field Course	R			R
BIOL2043 Biotechnology & the Living Cell	R	R	R	
BIOL2044 Medical Microbiology	R	R	R	
SOES2006 Phytoplankton and Primary Production				
SOES2017 Ecological Processes in the Marine Benthos				
SOES2032 Palaeobiology				
Additional modules may be selected to make 60ECTS (120CATS)				

C=compulsory modules (must take) R = Recommended

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

BIOL2042 Biological Sciences Study Abroad. There is an opportunity to carry out studies during semester 2 of year 2 at one of several partner universities in Australia. Specific module choices available will be dependent on the university selected and further information should be obtained from the module coordinator.

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 you will undertake at least 15ECTS of independent study. You will be offered the choice of the following 15ECTS modules:

i) Laboratory research project BIOL3034
ii) Field research project BIOL3061

In addition, either the part 3 Science Communication module (BIOL3060) or the part 4 Science Communication module (BIOL6072) must be taken.

For the remaining 45ECTS (or 37.5ECTS if BIOL3060is taken in part 3), Uup to a maximum of two modules (15ECTS) may be taken outside the Centre for Biological Science (e.g. Environmental Sciences (ENVS) modules, Oceanography (SOES) modules, Psychology (PSYC) modules). All other modules must be selected from the following list:

	Pathway			
	IB	**M**	**C/D**	**B/E**
Additional modules may be selected to make 60 ECTS				
BIOL3001 Current Topics in Cell Biology	R	R	R	
BIOL3003 Plant Cell Physiology	R	R	R	
BIOL3006 Cellular and Genetic Aspects of Animal Development	R		R	
BIOL3009 Applied Ecology	R			R
BIOL3010 Topics in Ecology and Evolution	R			R
BIOL3012 Cell Membranes			R	
BIOL3013 Molecular Recognition	R	R	R	
BIOL3014 Molecular Cell Biology		R		
BIOL3015 Regulation of Gene Expression	R	R	R	
BIOL3017 The Molecular & Structural Basis of Disease		R	R	
BIOL3018 Molecular Pharmacology		R	R	
BIOL3020 Systems Neuroscience			R	
BIOL3021 Cellular & Molecular Neuroscience		R	R	
BIOL3022 Cell Signalling in Health and Disease		R	R	
BIOL3025 Neuropharmacology of CNS Disorders		R	R	
BIOL3027 Selective Toxicity	R		R	
BIOL3037 Immunology	R	R	R	
BIOL3048 Neurodegenerative Disease		R	R	
BIOL3051 Applied Plant Biology	R	R	R	R
BIOL3052 Biomedical Technology		R		
BIOL3053 Biodiversity & Conservation	R			R
BIOL3056 Global Change Biology: Molecules to Ecosystem Services	R			R
BIOL3057 Biofilms & Microbial Communities	R		R	R
BIOL3063 Bioinformatics & Systems Biology	R			
BIOL3064 Cancer and Chromosome Biology	R		R	
BIOL3065 Biomedical Parasitology	R		R	
BIOL3067 Evolution & Development	R			R
BIOL3068 Fluxes Cycles & Microbial Communities	R			R
BIOL3070 Tropical Ecology Field Course				R

C=compulsory modules (must take) R = Recommended

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

Revisions of the contents of the programmes are made periodically to reflect developments at the frontiers of biology.

Part 4 (FHEQ Level 7)

In Part 4 you will undertake a compulsory research project from the options below.

BIOL6013 Advanced Laboratory Research Project (30 ECTS)
BIOL6069 Advanced Field Research Project (30 ECTS)

The compulsory modules annotated "C" in the following table must be taken together with one module annotated "(C)". C* = compulsory if BIOL3060 was not taken in part 3.

	Pathway			
	IB	**M**	**C/D**	**B/E**
BIOL6053 Current Research (7.5 ECTS)	C	C	C	C
BIOL6073 Critical Thinking (3.75ECTS)	C	C	C	C
BIOL6055 Computational Methods for Biological Data Analysis (3.75 ECTS)	(C)	(C)	(C)	(C)
BIOL6075 Biological Optical Imaging (3.75 ECTS)	(C)	(C)	(C)	(C)
BIOL6054 Techniques and theory of field biology (3.75 ECTS)	(C)	(C)	(C)	(C)
BIOL6077 Skills in Molecular Bioscience	(C)	(C)	(C)	(C)
BIOL6072 Science Communication (7.5 ECTS)	C*	C*	C*	C*

C=compulsory modules (must take); (C) = one of these options must be taken.

Optional modules

If BIOL3060 was taken in Part 3 then 2 modules must be selected from the table below or from modules available from outside the Centre for Biological Science provided they are relevant to Biology (e.g. Environmental Sciences (ENVS) modules, Oceanography (SOES) modules, Psychology (PSYC) modules). The FHEQ Level 7 equivalent of an FHEQ Level 6 module already taken cannot be selected.

If Science Communication BIOL6072 is being taken in Part 4 then 1 module must be selected from the table below or from modules available from outside the Centre for Biological Science provided they are relevant to Biology (e.g. Environmental Sciences (ENVS) modules, Oceanography (SOES) modules, Psychology (PSYC) modules).

Module	**Pathway**			
	IB	**M**	**C/D**	**B/E**
BIOL6010 Applied Ecology	R			R
BIOL6021 Current Topics in Cell Biology	R	R	R	
BIOL6025 Cellular and Genetic Aspects of Animal Development	R		R	
BIOL6028 Global Change Biology: Molecules to Ecosystem Services	R			R
BIOL6029 Topics in Ecology and Evolution	R			R
BIOL6030 Molecular Cell Biology		R		
BIOL6031 Cell Membranes			R	
BIOL6034 Systems Neuroscience			R	
BIOL6035 Cellular & Molecular Neuroscience		R	R	
BIOL6038 Immunology	R	R	R	
BIOL6041 Biomedical Technology		R		
BIOL6044 Plant Cell Biology	R	R	R	
BIOL6046 Applied Plant Biology	R	R	R	R
BIOL6052 Advanced Quantitative Methods	R	R	R	R
BIOL6066 Spatial Ecology & Conservation	R			R
BIOL6074 Bioinformatics Systems Biology	R	R		
BIOL6076 Biomedical Parasitology	R		R	

R = Recommended

Revisions of the contents of the programmes for Part 4 are made periodically to reflect developments at the frontiers of biology.

MSci Biology with 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 the 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 http://www.southampton.ac.uk/cip/information_for_students/minor_subjects/index.page?

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

If you successfully complete Part 1 you may switch to the degree programme in MSciZool or MEcol., Biology, Zoology or Ecology.

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.

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 feedback 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 student 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.

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 grades A-C in English, Mathematics and Science. 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:

AAB (excluding general studies)

Biology must be offered at A-level (minimum grade B) along with at least one other A-level science subject

A-level Science subjects considered include:

A-level	Biology (minimum grade B)
Other science A-levels	Chemistry Physics Mathematics Psychology Environmental Science Geology Geography

Alternative Qualifications

Our admissions requirement is normally defined on the basis of A/AS levels, but equivalent qualifications are accepted.

We do offer entry through a one year Science Foundation programme designed to enable you to qualify for entry to Honours degree programmes in Biological Sciences if you have not studied the appropriate Science subjects at

GCE A level or equivalent standard. It is particularly appropriate if you are a mature student or if you have obtained good grades in non-science A-levels.

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

Career Opportunities

With a MSci Biology degree you could be expected to find work in the following areas:

- Postgraduate degrees
- Teacher training
- Medicine
- Conservation and the environment
- Agriculture
- Industry
- Journalism

External Examiners(s) for the programme

Name Professor Alex Webb
Institution University of Cambridge

Name J 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 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 (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

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
		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 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.

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
		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. 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. Updated to take account of new Programme Specification template, September 2015
2. Minor Revisions July 2017