

**PROGRAMME SPECIFICATION**

<b>1</b>	<b>Awarding Institution</b>	Newcastle University
<b>2</b>	<b>Teaching Institution</b>	Newcastle University
<b>3</b>	<b>Final Award</b>	BSc (Hons)
<b>4</b>	<b>Programme Title</b>	Biology
<b>5</b>	<b>UCAS/Programme Code</b>	C100
<b>6</b>	<b>Programme Accreditation</b>	Not applicable
<b>7</b>	<b>QAA Subject Benchmark(s)</b>	Biosciences
<b>8</b>	<b>FHEQ Level</b>	Honours Level
<b>9</b>	<b>Date written/revised</b>	13 May 2008

**10 Programme Aims**

- 1 Develop a thorough knowledge and understanding of organisms, including microbes, plants and animals;
- 2 Introduce the main disciplines underpinning a full understanding of biology, including molecular biology, biochemistry, cell biology, physiology, genetics, ecology, evolution and systematics;
- 3 Progressively develop the laboratory and field work skills required for the study of biology;
- 4 Provide a curriculum enhanced by an active research environment that engenders critical thinking;
- 5 Stimulate a wide interest in biology including an awareness of how current developments may affect the present and future well-being of society and the planet;
- 6 Provide graduate-level training in key skills, including the ability to communicate in a variety of contexts, utilise IT and library resources efficiently, process and interpret quantitative data, manage time effectively, and work both independently and in teams;
- 7 Provide a flexible programme covering all aspects of biology, incorporating the elements specified in the benchmark statement for Biosciences issued by the Quality Assurance Agency;
- 8 Provide a curriculum which meets the criteria for B.Sc. Honours Degree level in the Framework for Higher Education Qualifications issued by the Quality Assurance Agency.

**11 Learning Outcomes**

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

**Knowledge and Understanding**

On completing the programme students should have:

- A1 A knowledge of biology from the molecular to the ecosystem level.
- A2 An understanding of the functioning of plants, animals and micro-organisms at the physiological and biochemical levels, with particular reference to environmental adaptation and responses to stress.
- A3 A knowledge of the diversity of living organisms and the principles underlying classification, with an understanding of evolutionary processes.
- A4 An understanding of ecology, with emphasis on population and community responses to pollution, climate change and other types of human impact.

A5	A knowledge of interactions between living organisms as symbionts, commensals, predators, parasites and pathogens.
A6	An understanding of genetics at both the population and molecular levels.
A7	An appreciation of the broader significance and impact of recent advances in biological science on contemporary society and the future.

### **Teaching and Learning Methods**

#### *Teaching Strategy*

A1 – A6 are principally imparted through lectures, enhanced and supplemented with co-ordinated practical work or additional learning delivered by means of appropriate CAL tasks, written assignments and seminars. Many of the lecture courses at Stage 3 are crucial in delivering A7 as they provide knowledge and insights at the 'cutting edge'. A specialised module (BIO3015 Social Impact of Biology) addresses the social and ethical aspects involved in A7.

#### *Learning Strategy*

Throughout the taught component of the course, students are encouraged and expected to engage in independent study, and are supported in this by the provision of reading lists, handouts and direction to many library and web-based resources (including e-journals).

### **Assessment Strategy**

#### *Assessment Strategy*

Assessment is partly by unseen written examinations (essays, short answers, data interpretation, missing words, multiple choice) but also via coursework. Most modules at Stages 1 and 2 include some coursework, thus ensuring that elements of formative, as well as summative, assessment and a variety of assessment methods are employed. At Stage 3 the distribution of exam- and assignment-assessed work is more polarised between modules, although as at Stages 1 and 2, each form a major part of the whole stage 3 assessment.

The level of academic achievement required under these strategic objectives is consistent with the award of a B.Sc. Honours Degree according to the FHEQ guidelines.

### **Intellectual Skills**

On completing the programme students should have acquired:

- |    |   |
|----|---|
| B1 | The ability to use the scientific method by formulating and testing hypotheses and to identify key data which allow such tests to be made.              |
| B2 | The ability to interpret and effectively summarise quantitative data to test hypotheses, including statistical analysis and interpretation.             |
| B3 | The ability to critically assess the value and limitations of existing information on a given subject and produce critical reviews of such information. |

### **Teaching and Learning Methods**

#### *Teaching strategy*

Cognitive skills (B1, B2) are introduced widely at Stage 1, and specifically via MAS1401 Statistical Methods. These skills are repeatedly rehearsed at Stage 2 via practical classes and the ensuing preparation of reports. B3 is specifically addressed via BIO2001 Biology Communication. During Stage 3, B1-3 are all practiced in BIO3022 Residential Field Course, BIO3021 Laboratory Workshop and BIO3096 Research Project, whilst BIO3095 Biological Information Project is focused specifically on B3.

#### *Learning strategy*

Students are encouraged to acquire B1-2 skills early via MAS1401 Statistical Methods. They then have to

rehearse these skills repeatedly in preparing a variety of laboratory and field practical reports at Stage 2. At Stage 2 BIO2001 Biology Communication offers repeated opportunities for practice of B3. B1-3 are all rehearsed again in full via BIO3021 Laboratory Workshop and BIO3022 Residential Field Course. Stage 3 BIO3096 Research Project requires students to design their own experiments (B1), analyse data yielded (B2), and appraising the quality of the data collected (B3). BIO3095 Biological Information Project focuses on B3.

### **Assessment Strategy**

All intellectual skills are assessed by means of coursework reports and/or small team outputs such as posters or talks in Stages 1 and 2. At Stage 3 some or all of B1-3 (depending on topic) are also examined by means of the dissertation (BIO3096 Research Project).

The level of academic achievement required under these strategic objectives is consistent with the award of a B.Sc. Honours Degree according to the FHEQ guidelines.

### **Practical Skills**

On completing the programme students should have acquired:

- C1 Laboratory experimental and analytical skills, including the use of key equipment, instrument calibration, and recording measurements with appropriate precision.
- C2 The ability to use keys and field guides to identify plants and animals.
- C3 Appropriate field skills: how to observe, record, and sample plants and animals in the wild.

### **Teaching and Learning Methods**

#### *Teaching strategy*

Laboratory skills (C1) are widely developed in practical components of subject specific modules, especially at Stage 2 and via BIO3021 Laboratory Workshop and BIO3096 Research Project. The analytical and statistical aspects of B1 are addressed through a specialised module in Stages 1 (MAS1401 Statistical Methods), via many laboratory and field classes in Stage 2, and in the residential field course (BIO3022) and research project (BIO3096) modules in Stage 3. The ability to develop identification (C2) and field skills (C3) are developed particularly by field course modules: BIO2003 Field Identification Skills and BIO3022 Residential Field Course.

#### *Learning strategy*

Students are encouraged to acquire practical laboratory and field investigation skills (C1, C3) by monitoring attendance at all laboratory and field classes in Stages 1 and 2. Students can further develop their practical and statistical skills through their application in Stage 3 via BIO3096 Research Project.

### **Assessment Strategy**

All practical skills are assessed by means of coursework reports and/or small team outputs such as posters or talks in Stages 1 and 2. At Stage 3 some or all of C1-3 (depending on topic) are also examined by means of the dissertation (BIO3096 Research Project).

The level of academic achievement required under these strategic objectives is consistent with the award of a B.Sc. Honours Degree according to the FHEQ guidelines.

### **Transferable/Key Skills**

On completing the programme students should be able to:

- D1. Communicate technical information by means of clear written and spoken presentations, following

	the accepted conventions for scientific interchange.
D2.	Use library and IT sources efficiently and critically.
D3.	Plan and prioritise work activities in order to meet deadlines.
D4.	Work independently with initiative, and also synergistically in teams.

### Teaching and Learning Methods

#### *Teaching strategy*

Management of workload in order to meet deadlines (D3) is promoted by means of a strict coursework timetable (students are encouraged to complete their own Gantt charts which are included in the Degree Programme Handbooks). All key skills (D1-4) are formally introduced in BIO2001 Biology Communication. Team-working skills (D4) are developed through supervised group exercises in the laboratory and field in Stage 2, and later via BIO3021 Residential Field Course and BIO3022 Laboratory Workshop.

#### *Learning strategy*

The learning of these skills by practice with feedback, together with formative and summative assessment, is embedded in the curriculum at all Stages and in the great majority of modules. There are also specific modules at each Stage that give explicit opportunities in this area. Students frequently submit reports based on their own laboratory and field work, conducted in teams or alone (D1, D4). Individual verbal presentations are assessed in BIO2001 Biology Communication and formative feedback is given (D1-2). The application of all these skills (D1-D4) is practiced at Stage 3 in BIO3021 Residential Field Course or BIO3022 Laboratory Workshop. Talks are required in addition to the dissertation as outputs from BIO3096 Research Project, and other media are routinely used to produce outputs for BIO3095 Biological Information Project.

### Assessment Strategy

D1 and D2 are assessed repeatedly by means of coursework (laboratory and field work reports) at all three Stages. The ability to critically assess and review existing information is specifically tested in BIO2001 Biology Communication and in the two Stage 3 project modules (BIO3095/6).

The level of academic achievement required under these strategic objectives is consistent with the award of a B.Sc. Honours Degree according to the FHEQ guidelines.

## 12 Programme Curriculum, Structure and Features

### Basic structure of the programme

The following principles have been followed within this degree programme with respect to its overall structure:

- **Stage 1** modules are broad in scope and non-overlapping in subject area. They are chosen so that all Stage 1 students receive the same solid grounding in all fundamental areas underpinning biology, regardless of entry qualifications. Study and reading patterns are quite strongly directed, but students can choose one or two modules (20 credits) from a selection of six, in addition to the nine compulsory modules (100 credits).
- **Stage 2** modules are more specialised, relating more closely to the specifics of the subject. As such, they are shared with fewer other degree programmes. In general, study is more self-driven than at Stage 1, and students are encouraged to develop a more individual and original approach to reading and report writing. Some modules are based around techniques, so that at the end of Stage 2, students should be competent to carry out selected species identifications, and biochemical, physiological and ecological analyses. Students will also have had some experience of critically reviewing research literature, experimental design and data analysis, and the presentation of written and spoken reports resulting from their own work. The curriculum consists of eight compulsory modules (80 credits) and four optional ones (40 credits). Students can elect to take options in either cellular and molecular or ecological topics, with a view to further specialisation in Stage 3.
- **Stage 3** modules are yet more specialised and research led. Much time is taken up with individual

research work in the laboratory, library or field. Students are expected to apply the techniques and knowledge that have been learnt in earlier Stages to specific tasks. Work should be highly self-directed, and revolve around the study of recent research-based literature. High quality work at this level should combine all the knowledge and skills objectives listed in the preceding sections. The curriculum consists of four compulsory modules (50 credits) and seven optional ones (70 credits) through which students enhance the specialisation started at Stage 2, towards biology at either the cellular and molecular level, or the ecological scale.

**Key features of the programme (including what makes the programme distinctive)**

Biology is a huge subject, so this programme covers a wide range of topics including plants, animals and micro-organisms. The course focuses on how biological species work, at scales ranging from the molecular to the whole organism, as well as how they interact, both physiologically and ecologically, with each other and their environments. Along with a core of modules dealing with organisms as functioning units, students may take optional modules dealing with ecology to provide them with the knowledge and insights needed to study and manage threatened species and ecosystems, or to control pests and diseases. Alternatively, students can select options more concerned with cell and molecular biology. This will give them an understanding of the physiology of stress, responses to pollutants, and microbes as a source of novel antibiotics. During the degree programme they develop skills in practical laboratory and field work, and the critical analysis and communication of scientific information.

This degree programme allows students to undertake an academically coherent study of biology, whilst to some extent concentrating on topics centred on cellular and molecular function, or alternatively focusing on biology at a larger scale through dealing with ecology and conservation biology.

**Programme regulations (link to on-line version)**

<http://www.ncl.ac.uk/regulations/programme/>

**Degree of Bachelor of Science with Honours in Biology  
UCAS Code: C100**

*Notes*

- (i) *These programme regulations should be read in conjunction with the University's Undergraduate Progress Regulations and Examination Conventions.*
- (ii) *All optional modules are offered subject to the constraints of the timetable and to any restrictions on the number of students who may be taught on a particular module. Not all modules may be offered in all years and they are listed subject to availability.*
- (iii) *A compulsory module is a module which a student is required to study.*
- (iv) *A core module is a module which a student must pass, and in which a fail mark may neither be carried nor compensated; such modules are designated by the board of studies as essential for progression to a further stage of the programme or for study in a further module.*

**Stage 1**

- (a) Unless otherwise stated modules are not core.
- (b) All candidates shall take the following compulsory modules:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type
ACE1013	Introduction to Genetics	10	10		C	
ACE1019	Introductory Biochemistry	20	10	10	C	
BIO1001	Cell Biology	10	10		C	
BIO1002	The Animal Kingdom	10	10		C	
BIO1003	Plant Biology 1	10		10	C	

BIO1004	Microbiology 1	10	10		C	
BIO1005	Evolution	10	10		C	
BIO1006	Ecology 1	10		10	C	
MAS1401	Statistical Methods	10		10	C	

- (c) All candidates shall take optional modules or pairs of modules from the following optional modules to a total of 20 credits:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
MST1001	Biodiversity of Marine Animals	20		20	C	
<b>OR</b>						
GSC1101	The Global Environment System	20	10	10	C	
<b>OR</b>						
PSY1006	Instinct, Learning and Motivation	10		10	C	
PSY1009	Cognition, Emotion and Stress	10		10	C	
<b>OR</b>						
ACE1012	Domestic Animal Physiology	10	10		C	
ACE1022	Crop Pests	10		10	C	

With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

## Stage 2

- (a) All candidates shall take the following compulsory modules:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
BIO2001	Biology Communication	10	10		I	
BIO2003	Field identification Skills*	10	10		I	
BIO2004	Plant Biology 2	10	10		I	
BIO2008	Population Genetics	10		10	I	
BIO2010	Molecular Biology & Genomics	10	10		I	
BIO2014	Animal Physiology	10	10		I	
BIO2017	Microbiology 2	10		10	I	
MST2010	Animal Development	10		10	I	

\* **Note: BIO2003 takes place in the period immediately following the end of the Semester 2 examinations in Stage 1.**

- (b) \*\* All candidates may select 20 of their optional credits from ONE of the following pairs of modules:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
BIO2007	Vertebrate Biology	10		10	I	
BIO2013	Animal Behaviour	10	10		I	

**OR**

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
ACE2031	Animal Parasitology	10		10	I	
BIO2006	Entomology	10	10		I	

- (c) All candidates may choose additional optional modules from either (i) (subject group A) or (ii) (subject group B) below. If you choose subject group A at Stage 2 you must also select subject group A at Stage 3. Similarly if you choose subject group B at Stage 2 you must select from subject group B at Stage 3.

(i) **Subject Group A.**

All candidates choosing this group shall take the following:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
BIO2015	Biotechnology 1	10		10	I	
BIO2016	Metabolism	10	10		I	

In addition, candidates choosing this group, if they have chosen no module pair from (b) \*\* above, shall take the following modules:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
ACE2034	Introduction to Immunology	10		10	I	
BIO2005	Practical Biochemistry	10		10	I	

(ii) **Subject Group B**

All candidates choosing this group shall take the following:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
BIO2002	Biodiversity and Conservation	10		10	I	
BIO2009	Ecology of Populations and Communities	10		10	I	

In addition, candidates choosing this group, if they have chosen no module pair from (b) \*\* above, shall take 20 credits from the following:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
ACE2032	Climatic and Environmental Change	10	10		I	
BIO2018	Pollution of Air, Water & Soil 1	10	10		I	
MST2001	Tropical Marine Environments & Ecology	10	10		I	

With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

**Stage 3**

- (a) All candidates shall take the following compulsory modules:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>
BIO3015	Social Impact of Biology	10		10	H	
BIO3019	Genomics	10	10		H	
<b>And either</b>						
BIO3021	Laboratory Workshop*	10	10		H	
<b>Or</b>						
BIO3022	Residential Field Course*	10	10		H	
<b>And either</b>						
BIO3095	Biological Information Project	20	10	10	H	

<b>Or</b>						
BIO3096	Research Project	20	10	10	H	

**\* Note: BIO3021/2 take place in the period immediately following the end of the Semester 2 examinations in Stage 2; BIO3021 is taken by students selecting Subject Group A modules in Stages 2 and 3; BIO3022 is taken by students selecting Subject Group B modules in Stages 2 and 3.**

(b) All candidates shall take 20 credits and not more than 50 credits from the following list:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type
BIO3001	Animal Ecophysiology	10	10		H	
BIO3004	Photosynthesis	10	10		H	
BIO3006	Plant-Animal Interactions	10		10	H	
BIO3007	Pollution of Air, Water and Soil	10		10	H	
BIO3009	Biological Control	10	10		H	
BIO3014	Evolution and Behaviour	10	10		H	
BIO3016	Mechanisms of Behaviour	10		10	H	

(c) All candidates shall select at least 20 credits and not more than 50 credits from either (i) (subject group A) or (ii) (subject group B) below:

(i) **Subject Group A**

All candidates choosing this group shall take the following:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type
BIO3013	Cell Proliferation and Death	20		20	H	

In addition, candidates choosing this group may select up to 30 credits from the following:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type
BIO3018	Biotechnology 2	10	10		H	
BIO3020	Bioremediation	10		10	H	
BIO3023	Plant Pathology	10	10		H	
BIO3027	Microbiology 3	10		10	H	

(ii) **Subject Group B**

All candidates choosing this group shall take the following:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type
BIO3002	Animal Population Dynamics	10	10		H	
BIO3012	Conservation Biology Issues	10		10	H	

In addition, candidates choosing this group may select up to 30 credits from the following:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type
ACE3064	Ecosystem Management	10		10	H	
BIO3003	Ecological Modelling	10	10		H	
MST3002	Marine Systems Ecology	10	10		H	



With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

### **Assessment methods**

Details of the assessment pattern for each module are explained in the module outline.

### **Degree classification**

Candidates will be assessed for degree classification on the basis of all the modules taken at Stages 2 and 3 with the weighting of the stages being 1:3 for Stage 2 and Stage 3 respectively.

## **13 Criteria for admission**

### **Entrance Requirements**

#### ***A Levels***

ABB normally including Biology and another science subject but excluding General Studies. Chemistry is preferred at A or AS level, but not essential. GCSE Mathematics (minimum grade B) required if not offered at A or AS level.

#### ***Scottish Qualifications***

AAAB at Higher Grade including two science subjects. Advanced Higher Biology and another science subject normally required. Higher Grade Chemistry desirable.

#### ***International Baccalaureate***

32-35 points normally including Higher Level Biology at grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.

#### ***Irish Leaving Certificate***

AABBB at Higher level, preferably including Biology and Chemistry.

#### ***Access Qualifications***

A module in Biological Sciences is essential and modules in Chemistry, Mathematics or Quantitative Methods desirable (three modules at Distinction/Credit grade for HEFC).

#### ***BTEC National Diploma***

A science-related subject with substantial biology and chemistry units at overall DDM grade.

**Please Note that unless otherwise indicated**, all candidates with qualifications other than those specifically listed are considered on an individual basis. Please refer to [Entrance Requirements](#) for a full explanation.

### ***Admissions policy/selection tools***

Admission to any of the degrees which we offer is not solely on the basis of academic criteria such as examination performance and grades. We also consider other evidence in your UCAS application, which indicates your potential to succeed on a degree programme.

This may include, for example

- your personal statement
- your tutor's reference
- evidence of relevant skills or aptitudes
- any special circumstances which affect your application

### ***Non-standard Entry Requirements***

Mature students - Applications considered on merit, although evidence of recent study is required. Relevant work experience is also useful.

All applicants are offered the opportunity to visit the Department to find out more about the degree programme, to speak with staff and current students and to see the facilities available. Many applicants will be offered a place on the basis of their UCAS application alone but students with non-standard qualifications usually will be invited to visit and to have a discussion with the Admissions Tutor or other member of staff before an offer is made.

### ***Level of English Language capability***

As it is important for all students to have a good level of English in order to benefit from this degree programme, the specific requirement is an IELTS score of at least 6.5 or the equivalent.

## **14 Support for Student Learning**

### *Induction*

During the first week of the first semester each year, students attend an induction programme. New students will be given a general introduction to University life and the University's principle support services and general information about the School and their programme, as described in the Degree Programme Handbook. New and continuing students will be given detailed programme information and the timetable of lectures/practicals/labs/ tutorials/etc. The International Office offers an additional induction programme for overseas students.

### *Study skills support*

Students will learn a range of Personal Transferable Skills, including Study Skills, as outlined in the Programme Specification. Some of this material (e.g. time management) is covered in the appropriate Induction Programme. Students are explicitly tutored on their approach to both group and individual projects.

Numeracy support is available through Maths Aid.

Help with academic writing is available from the Writing Centre.

### *Academic support*

The initial point of contact for a student is with a lecturer or module leader, or their tutor (see below) for more generic issues. Thereafter the Degree Programme Director or Head of School may be consulted.

Issues relating to the programme may be raised at the Staff-Student Committee, and/or at the Board of Studies.

#### *Pastoral support*

All students are assigned a personal tutor whose responsibility is to monitor the academic performance and overall well-being of their tutees. In addition the University offers a range of support services, including one-to-one counselling and guidance or group sessions/workshops on a range of topics, such as stress and anxiety, student finance and budgeting, disability matters, etc. There is specialist support available for students with dyslexia and mental health issues. Furthermore, the Union Society operates the Student Advice Centre, which can provide advocacy and support to students on a range of topics including housing, debt, legal issues, etc.

#### *Support for students with disabilities*

The University's Disability Support Service provides help and advice for disabled students - and those thinking of coming to Newcastle. It provides individuals with: advice about the University's facilities, services and the accessibility of campus; details about the technical support available; guidance in study skills and advice on financial support arrangements; a specialist resources room with equipment and software to assist students in their studies.

#### *Learning resources*

The University's main learning resources are provided by the Robinson and Walton Libraries (for books, journals, online resources), and Information Systems and Services, which supports campus-wide computing and IT facilities.

All new students whose first language is not English are required to take an English Language Proficiency Test. This is administered by INTO Newcastle University Centre on behalf of Newcastle University. Where appropriate, in-session language training can be provided. The INTO Newcastle University Centre houses a range of resources which may be particularly appropriate for those interested in an Erasmus exchange.

## **15 Methods for evaluating and improving the quality and standards of teaching and learning**

#### *Module review and innovations*

Changes to existing modules and the introduction of new ones are considered at the School Teaching and Learning Committee and at the Board of Studies. New modules and major changes to existing modules are subject to approval by the Faculty Teaching and Learning Committee.

#### *Programme reviews*

The Board of Studies conducts an Annual Monitoring and Review of the degree programme and reports to Faculty Teaching and Learning Committee.

#### *External Examiner reports*

External Examiner reports are considered as Reserve Business by the Board of Studies. The Board responds to these reports through Faculty Teaching and Learning Committee. External

#### *Student evaluations and feedback*

All modules, and the degree programme, are subject to review via student questionnaires. Student opinion is also obtained via the Staff-Student Committee, and the Board of Studies. Feedback is also obtained via Module Leaders and the Biology Teaching Support Office. The National Student Survey is sent out every year to final-year undergraduate students, and consists of a set of questions seeking the students' views on the quality of the learning and teaching in their HEIs. With reference to the outcomes of the NSS and institutional student satisfaction surveys undertaken at Stages 1 and 2, actions are taken at all appropriate levels by the institution.

#### *Faculty and University Review Mechanisms*

The programme is subject to the University's Internal Subject Review process. Every five years degree programmes in each subject area are subject to periodic review. This involves both the detailed consideration of a range of documentation, and a two-day visit by a review team which includes an external subject specialist in addition to University and Faculty Teaching and Learning Committee representatives. Following the review a report is produced, which forms the basis for a decision by University Teaching and Learning Committee on whether the programmes reviewed should be re-

approved for a further five year period. An action plan is framed as necessary and progress towards fulfilling its objectives within a specified timeframe is monitored by Faculty Teaching and Learning Committee.

## 16 Regulation of assessment

### *Pass mark*

The pass mark is 40 (Undergraduate programmes)

### *Course requirements*

Progression is subject to the University's Undergraduate Progress Regulations and Undergraduate Examination Conventions. In summary, students must pass, or be deemed to have passed, 120 credits at each Stage. Limited compensation up to 40 credits and down to a mark of 35 is possible at each Stage and there are resit opportunities, with certain restrictions.

### *Weighting of stages*

The marks from Stages 2 & 3 will contribute to the final classification of the degree  
The weighting ratio for marks at Stages 2:3 is 25:75

### *Common Marking Scheme*

The University employs a common marking scheme, which is specified in the Undergraduate Examination Conventions, namely

	<b>Modules used for degree classification (DC)</b>	<b>Modules not used for degree classification</b>
<40	Fail	Failing
40-49	Third Class	Basic
50-59	Second Class, Second Division	Good
60-69	Second Class, First Division	Very Good
70+	First Class	Excellent

### *Role of the External Examiner*

An External Examiner, a distinguished member of the subject community, is appointed by Faculty Teaching and Learning Committee, after recommendation from the Board of Studies. The External Examiner is expected to:

- See and approve examination papers
- Moderate examination and coursework marking
- Attend the Board of Examiners
- Report to the University on the standards and delivery of the programme

In addition, information relating to the programme is provided in:

The University Prospectus (see <http://www.ncl.ac.uk/undergraduate/>)

The School Brochure (contact [enquiries@ncl.ac.uk](mailto:enquiries@ncl.ac.uk))

The University Regulations (see <http://www.ncl.ac.uk/calendar/university.regs/>)

The Degree Programme Handbook

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the opportunities provided. The accuracy of the information contained here is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

### Mapping of Intended Learning Outcomes onto Curriculum/Modules

Achievement of specific Intended Learning Outcomes (A-D) occurs through provision in the **compulsory** and *optional* modules specified for each Stage in the Degree Programme Regulations, as follows:

Code	Type	A	B	C	D
<b>Stage 1</b>					
ACE1019	Compulsory	1,2	1,2	1	1,3,4
ACE1013	Compulsory	1,2,6	2,3		1
BIO1001	Compulsory	1,2	2	1	1-3
BIO1002	Compulsory	1,3,5		1	1,2
BIO1004	Compulsory	1-3,5	2	1	1-4
BIO1005	Compulsory	1,3,4,6	1,3		1,2
BIO1003	Compulsory	1-5	2	1	1-4
BIO1006	Compulsory	1,4,5	1,2	3	1,3,4
MAS1401	Compulsory		1,2		2
MST1001	Optional	1-4	2	1,2	1,2,4
GSC1101	Optional	4	2		1,2
PSY1006	Optional	1,2	1		1
PSY1009	Optional	1,2	1		1
ACE1022	Optional	1,4,5	2	2	1,3,4
ACE1012	Optional	1,2	2	1	1
<b>Stage 2</b>					
BIO2008	Compulsory	1,3,4,6	1,2	1,3	1,3,4
BIO2010	Compulsory	1,2,6	3		1,2
BIO2014	Compulsory	1,2	2	1	1-4
BIO2017	Compulsory	1-5,7	2	1	1-4
BIO2001	Compulsory	all	1-3		1-4
MST2010	Compulsory	1,2		1	1,3,4
BIO2004	Compulsory	1-5	1,2	1	1-4
BIO2003	Compulsory			2,3	2,4
BIO2013	Optional	1,2,4	1,2	1	1,2,4
BIO2007	Optional	1-4		1	1
BIO2006	Optional	1-5,7	2	1	1,2,4
ACE2031	Optional	1-4	2	1	1-4
BIO2016	Optional(A)	1,2	2		1,3
BIO2015	Optional(A)	1,2,6,7		1	1,3,4
BIO2005	Optional(A)	1,2	1,2	1	1,3,4
ACE2034	Optional(A)	1,2,5	2	1	1-4
BIO2009	Optional(B)	1,4	2		1,2
BIO2002	Optional(B)	1,4,7	2,3		1
BIO2018	Optional(B)	1,2,4,7	2,3		1-4
ACE2032	Optional(B)	4			1,4
MST2001	Optional(B)	1,4,5	2		1-4
<b>Stage 3</b>					
BIO3022	Compulsory(B)	1,4,5	all	2,3	all
BIO3021	Compulsory(A)	1,6	all	1	all
BIO3015	Compulsory	7	3		1
BIO3019	Compulsory	1,2,6,7	1,2		1,2
BIO3095	Compulsory**	all	2-3		1-4
BIO3096	Compulsory**	all	1-3	all	1-4
BIO3009	Optional	1,4,5,7	3		1,2
BIO3014	Optional	1,7	3		1-4

<b>Code</b>	<b>Type</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
BIO3004	Optional	1,2,4,7	3		1-4
BIO3006	Optional	1,2,4,5,7			1
BIO3007	Optional	1,4,7	3		1-4
BIO3016	Optional	1,2	3		1,2
BIO3001	Optional	1,2	3		1,2,4
BIO3013	Optional(A)	1,2,7	3		1,2,4
BIO3018	Optional(A)	1,2,5-7	3		1-4
BIO3023	Optional(A)	1,2,5,7	3		1-4
BIO3020	Optional(A)	1,2,4,7	2,3		1,2
BIO3027	Optional(A)	1,4,6,7	2,3		1,2,3
BIO3012	Optional(B)	1,4,7	3		1,2
BIO3002	Optional(B)	1,4	3		1
BIO3003	Optional(B)	1,4	3		1,2,4
ACE3064	Optional(B)	1,4,7			1
MST3002	Optional(B)	1,4,5,7	3		1,2

Notes:

\*\* Students must select either BIO3095 or BIO3096.

(A) and (B) denote optional modules specific to Subject Groups A (cellular/molecular) and B (ecological).