

**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) / MBiol (Hons)
<b>4</b>	<b>Programme Title</b>	Bachelor of Science with Honours in Biology Bachelor of Science with Honours in Biology with Placement Year Bachelor of Science with Honours in Biology with Study Abroad Master of Biology with Honours in Biology Master of Biology with Honours in Biology with Placement Year Master of Biology with Honours in Biology with International Study Year
<b>5</b>	<b>UCAS/Programme Code</b>	C100 1143U 1573U C103 1140U 1842U
<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>	Level 6 / Level 7
<b>9</b>	<b>Date written/revised</b>	July 2025

**10 Programme Aims**

We develop graduates who are equipped to solve current and future interdisciplinary biological problems using cutting edge approaches. We do this through instilling principles of critical thinking, integrated problem solving, how to collect, interpret and present scientific data and information. We teach our graduates how to solve these local, regional and global problems in an ethical and equitable manner, creating citizens who are globally aware and culturally sensitive. We equip with them with skills, knowledge and professionalism to be successful in the varied careers on offer to biosciences graduates.

## **11 Learning Outcomes**

The programme provides opportunities for students to develop and apply competencies in the following areas. The programme competencies have references to the benchmark statements for Biosciences, Education for Sustainable Development, 4<sup>th</sup> Industrial Revolution, Education 4.0, Graduate Attributes and NU Education for Life.

On completing the programme students will be able to demonstrate the following competencies:

### **1. Knowledge Application**

Use a systems approach to apply and integrate knowledge to find creative and future focused solutions to real-world problems.

### **2. Information Literacy**

Identify and critically assess appropriate sources of information.

### **3. Practical Skills**

Demonstrate a range of field, laboratory and/or computational skills relevant to your programme of study.

### **4. Data Literacy**

Evaluate and communicate to a diverse audience the rigour, integrity and contemporary relevance of your creative solution or original research.

### **5. Communication**

Recognise, critically question and effectively communicate scientific knowledge to a diverse audience.

### **6. Digital Literacy**

Communicate with a diverse audience in person and through written, digital and media technologies professionally, safely and confidently.

### **7. Ethics Literacy**

Practice effective, ethical information management and exercise responsible global and cultural citizenship through ethical behaviours.

### **8. Collaboration**

Collaborate effectively by listening, expressing clearly, and asking constructive questions. Value diverse knowledge, perspectives, and experiences in teamwork. Be self-aware and proactively work with independence and responsibility, both individually and in groups.

### **9. Professional Skills & Career Management**

Be self-aware and understand skillset development and be aware how this can be applied to the varied careers open to a science graduates. Be able to evaluate and make informed decisions about future personal and professional goals. Act with professionalism and resilience to make a significant contribution in the interdisciplinary workplaces of today and tomorrow.

### **10. Integrated Problem Solving**

Apply disciplinary knowledge and skills to complex challenges, analysing and synthesising information to find solutions to address complex real-world challenges, thereby fostering critical thinking and integrated problem solving.

## **Teaching and Learning Methods**

All competencies (1-10) are formally introduced in the Stage 1 skills module and embedded in the curriculum at all Stages of the degree programme.

There are specific modules at each Stage that give explicit opportunities for development of individual competencies. Collaboration skills (8) are developed through supervised group exercises in the laboratory and field, and via the residential field course. Students take part in a

variety of problem solving activities (10), including design of projects, interactive exercises and planning practical work.

Students complete a wide range of authentic formative and summative assessments designed to aid learning based on their own laboratory and field work, conducted in teams or alone (5-6, 8). All competencies are further developed at later stages through more research-led modules and the project module (1-10).

For those students taking a Placement year, preparation for the placement helps to further develop professional skills and career management (9) as well as further development of these competencies (8-10) in the workplace with guidance from the Careers Service and the workplace supervisors.

#### **Assessment Strategy**

Competencies (1-10) are assessed by a combination of examination and coursework assignments, including project and practical reports, essays, oral presentations and computer-based assessments. Formative feedback is provided throughout the course to allow students to assess and develop their competencies and consolidate their learning.

## **12 Programme Curriculum, Structure and Features**

### **Basic structure of the programme**

- (a) Duration three years, or four years for the MBiol.
- (b) Comprises three stages, plus a fourth for the MBiol.
- (c) A total of 360 credits at BSc: 120 Stage 1, 120 Stage 2, 120 Stage 3. MBiol students also complete 120 credits during Stage 4.
- (d) Module credit values vary between 10 and 40. 10 credits represents 100 hours of student activity and 40 credits 400 hours of student activity.
- (e) Progression: Pass in 120 credits is required in Stages 1 and 2. Modules which are failed with a mark of >35 can be compensated if the overall mark is >40. The Board of Examiners may recommend a pass at a lower mark if circumstances warrant.

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

- **Stage 1** modules are broad in scope and complementary in subject area. They are designed 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.
- **Stage 2** modules are more specialised, relating more closely to the specifics of the subject. 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 specific practical 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.
- **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 competencies listed in the preceding sections.
- **Stage 4** consists of a 60 credit research project and a choice of specialised masters level modules (60 credits). The level of work at this stage is expected to reflect the higher level of qualification.

Students on the Careers Placement Year / International Study Year programmes will take their placements in the penultimate year of studies.

#### **Key features of the programme**

This degree programme allows students to undertake an academically coherent study of biology that focuses on how biological species function, 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 environment.

The programme aims to give students a breadth of knowledge that will give them maximum flexibility in their future career paths. Along with a core of modules dealing with organisms as functioning units, students choose optional modules focused on different aspects of biology; these modules can deal with ecology and biodiversity or be more concerned with cell and molecular biology. Depending on the choice of modules, this will give students an understanding of how plants and animals cope with stress (at both physiological and molecular levels), responses to pollutants, and the key roles that microbes play in the environment, both beneficial and harmful.

During the degree programme there is a strong emphasis on developing practical skills in laboratory and field work, and the critical analysis and communication of scientific information. The third year provides the opportunity to undertake a substantial research project, working closely with a research group in the School.

Students will have gained vocational employability skills that are embedded within their programme and are encouraged from the first Stage of their degree programme to become independent learners and develop key transferable competencies. The fourth year provides MBiol students with the opportunity to undertake a substantial research project, working closely with a research group in the School, as well as to take specialised modules that examine a range of biological and related topics at an advanced level.

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

C100-1842U: [-RC100-1842U](#)

### **13 Support for Student Learning**

Generic information regarding University provision is available at the following link.

[Generic Information](#)

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

Generic information regarding University provision is available at the following link.

[Generic Information](#)

*Accreditation reports*

N/A

*Additional mechanisms*

*Mechanisms for gaining student feedback*

Feedback is channelled via the Student-Staff Committee and the Board of Studies.

*Faculty and University Review Mechanisms*

Every six years degree programmes in each subject area undergo Learning and Teaching Review. This involves both the detailed consideration of a range of documentation, and a review visit by a review team (normally one day in duration) which includes an external subject specialist and a student representative. Following the review a report is produced, which forms the basis for a decision by University Education Committee on whether the programmes reviewed should be re-approved for a further six year period.

#### **15 Regulation of assessment**

Generic information regarding University provision is available at the following link.

[Generic Information](#)

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

The University Prospectus: <http://www.ncl.ac.uk/undergraduate/degrees/#subject>

Degree Programme and University Regulations: <http://www.ncl.ac.uk/regulations/docs/>

**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.