



School of Natural and Environmental Sciences

Biology & Zoology

**Degree Programme Information
ACADEMIC YEAR 2024-2025**

STAGE 1 (FIRST YEAR)

Name:

DISCLAIMER

The information contained in this programme information booklet is correct at the time of publication. Please check the university website and your timetables regularly.

For any academic queries please contact your personal tutor, stage co-ordinator or snes.bmsc.support@newcastle.ac.uk.

1. GENERAL INFORMATION

This handbook supplements the general Degree Programme Handbook for degrees in the School of Natural and Environmental Sciences. It gives information that you will need in order to follow a successful, productive, and we hope, happy and rewarding period studying Biology or Zoology.

You are undertaking a major commitment in money, effort, and time to your degree programme. Learning at university level is a collaborative process between learners and teachers: for you to succeed, you must engage actively with the opportunities available to you and use your initiative. You can think of yourself as a 'stakeholder' in your continuing education and the society in which you live. (Stakeholders are those people with a vested interest in an activity and in addition to you, the stakeholders in your education include future employers and sponsors.)

Study at university places special emphasis on the basis for and interpretation of knowledge. As a university student, you should expect to do more than learn essential facts about biology – by the time you graduate, you should have a sound grasp of the basis of biological knowledge and be able to apply it. In order to achieve this, you will of course need to add to your factual knowledge, but you will also learn how to evaluate sources of information and become skilled in the interpretation of experiments and associated data sets. This is often referred to as a 'cognitive skill' and it is the development of this ability that is perhaps the most important benefit that you will gain from the degree programme. We are committed to giving you the opportunity to learn much more than a mass of knowledge and we aim to equip you with skills necessary for you to have an influence 'to the good' in whatever future walk of life you choose.

1.1 Summary of Programme Commitments

The University's Student Charter, explained more in the School Degree Programme Handbook, requires that students are provided with a 'programme handbook which details any professional requirements, contact hours, mode of programme delivery, assessment criteria, examination arrangements and regulations, academic guidance and support, and appeals and complaints procedures. The purpose of the summary below is to provide this information or to help you locate further details about it in your handbooks.

Average number of contact hours for this programme:	Contact hours will vary depending on the week and the modules you select, but for 24/25 we are aiming for students to have both present in person and synchronous online contact time.
Mode of delivery:	Modes of delivery are explained in section 2.4 (page 7) of this handbook.
Normal notice period for changes to the timetable, including rescheduled classes:	You will be notified of changes to the published timetables in advance where possible. However, if a lecturer calls in sick, or there are external circumstances beyond our control you will be notified by email/Canvas at the earliest opportunity.

Normal notice period for changes to the curriculum or assessment:	Degree programmes are reviewed annually. In semester 1, students are consulted on changes to regulations for the following year via the Student-Staff Committee and the Board of Studies. Sometimes it may be beneficial to students or be necessary to make changes at shorter notice because of issues that are identified, or in relation to staff availability. In such cases, students are consulted as soon as possible.
Normal deadline for feedback on submitted work (coursework):	The normal deadline for feedback on coursework is within 20 working days (Monday-Friday, not including Bank Holidays or University closure days) of submission. Some assignments (such as major project reports) are exempted from this policy. Assignment feedback will be made available via Canvas by your module leaders.
Normal deadline for feedback on examinations:	The normal deadline for exam feedback is 20 working days from the end of the exam period.
Professional Accreditation:	There are currently no professional accreditations associated with the programmes.
Assessment methods and criteria:	Assessment methods and criteria are described in section 3 (p. 11) section 3 (p. 14) of this handbook.
Academic guidance and support:	Academic guidance and support is available to all students from teaching staff, via the tutorial system and through the University's support mechanisms. For more information, please refer to section 2 (p. 7) of the School handbook.

1.2 Key Contacts

Your Tutor is usually your first point of contact for questions about your studies and for dealing with problems that affect your studies.

The Head of School and the Director of Education (DoEd) have overall responsibility for the degree programmes in the School. Boards of Studies manage groups of degree programmes. Degree Programme Directors (DPDs) have responsibility for specific degree programmes.

Along with the DPD there are a team of three Stage Co-ordinators per programme and are your **first point of contact for queries with regards to studies on that Stage**. They work closely with the DPD on the delivery of taught programmes and with the Senior Tutor and Personal Tutors in supporting our students.

Stage Co-ordinators are responsible for representing a Stage at Student Staff Committees (SSC) and Board of Studies (BoS)/Board of Examiner (BoE) meetings.

DoEd : Professor Pip Moore
(Pip.Moore@newcastle.ac.uk)

Chair of the Board of Studies:
Dr Gary Caldwell (Gary.Caldwell@newcastle.ac.uk)

Board of Examiners Chair:
Professor Per Berggren (Per.Berggren@newcastle.ac.uk)

DPD BSc & MBiol Biology (C100, C103):

Dr Vasilios Andriotis (Vasilios.Andriotis@newcastle.ac.uk)

DPD BSc & MBiol Zoology (C300, C301)

Dr Mark Shirley (mark.shirley@newcastle.ac.uk)

Stage 1 Biology Co-ordinator:

Dr Gavin Stewart (Gavin.Stewart@newcastle.ac.uk)

Stage 2 Biology Co-ordinator:

TBC

Stage 3 Biology Co-ordinator:

Dr Tahar Taybi (Tahar.Taybi@newcastle.ac.uk)

Please note there is no Stage 4 Biology Co-ordinator – please refer to DPD Dr Vasilios Andriotis (Vasilios.Andriotis@newcastle.ac.uk)

Stage 1 Zoology Co-ordinator:

TBC

Stage 2 Zoology Co-ordinator:

Dr Evelyn Jensen (Evelyn.Jensen@newcastle.ac.uk)

Stage 3 Zoology Co-ordinator:

Dr Mark Booth (Mark.Booth@newcastle.ac.uk)

Administrative Support

For all queries relating to your degree programme, either:

e-mail: snes.bmsc.support@ncl.ac.uk

or visit The Hub on the ground floor of the Agriculture Building

09:00am – 5:00pm - Monday to Thursday

09:00am – 4:00pm - Friday

1.3 Equipment

Protective clothing

You will be given a white lab coat, face covering, and safety goggles during Induction. Please note that you will not be admitted to a practical class in any lab without appropriate protective clothing and a face covering. There will be a charge to replace your lab coat if it is lost. Gloves and other protective items will be provided in the lab when necessary.

Calculator

You will need a calculator with basic statistical and mathematical functions (such as mean, standard deviation, natural logarithms). Beginning in 2015-16, new students can only use three models of calculator (Casio FX-83GTPLUS, Casio FX-85GTPLUS or Casio FX-115MS - or any discontinued models of the same calculator). Current students who have already purchased a calculator and have an 'approved' sticker may continue to use it.

Books

We recommend strongly that you buy your own copy of the textbook *Life: The Science of Biology*, by Sadava, Hillis, Heller and Hacker: you will need the 11th edition which was published during 2017. We have adopted this textbook for almost all of our first-year modules and some in the second year. The publishers have a concessionary arrangement for you with Blackwell's Bookshop (Percy St) to sell a copy of the printed book together with access to the e-book version, and many students find that combination useful. E-book access is for a limited time (currently one year).

To help you develop your study skills, and in support of MST1204 Academic and Professional Skills for the Biosciences we will give you an e-book of:

- *Study and Communication Skills for the Biosciences* (2019), by Johnson S. and Scott, J.
Publisher: Oxford University Press. ISBN9780199219834.

You will not need to buy other books for the modules covered by *Life*, although you may wish to buy some recommended for your optional modules, or for further reading. Most modules have their own reading lists, which are accessible through Canvas. The University Library has multiple copies of most textbooks, and some suitable second-hand textbooks may be advertised for sale in the Students' Union.

Printing and photocopying

All cluster rooms have black and white A4 printers; larger rooms also have colour and A3 printers. Photocopying is available in the University Libraries. All students are given a print and photocopying credit allocation at the start of each academic year. You can buy more credits online (<https://printing.ncl.ac.uk/printcredits/>) or buy a cash voucher from the Robinson Library main counter. You will be provided with one credit account for both copying and printing. This facility is available to you by using your smartcard identification - find out more about the photocopying service (<http://www.ncl.ac.uk/itservice/clusters/photocopying/>).

1.4 Facilities

- Most Biology and Zoology **staff** are based in Ridley Building 2 and in the Devonshire Building. We have offices and labs in both buildings. Many staff will be spending at least some of the week working from home.
- Where **lectures and seminars** are taking place in person they take place in various places around the campus. Check your timetable carefully.
- Most **practicals** take place in our large lab on the second floor of Ridley Building 2. Some Stage 3 research projects are based in our **project labs** on the fourth and fifth floor of Ridley Building 2.
- **Cockle Park Farm** is one of the university's farms. Some **practicals** may take place at Cockle Park.

1.5 Additional costs

There are charges for field courses that take place away from Newcastle.

Depending on travel restrictions there may be a week-long residential field course in Stage 2 that is compulsory for some students.

You partly pay for this from your tuition fees, but there are additional charges that depend on where the field course takes place.

There is an optional field course at Stage 3. Because it is optional, this field course is not currently supported from tuition fees.

2. COURSE STRUCTURE

Our undergraduate degree programmes have three (BSc), or four (MBiol) Stages, each lasting one year. Each Stage carries 120 credits. The University considers ten credits to represent 100 hours of study time by you, of which typically less than 30 hours will involve direct contact with staff for teaching and assessment purposes. To help you to balance your workload across the whole academic year, you are not normally allowed to take modules worth more than 70 credits or fewer than 50 credits in either Semester.

The degree programmes are organised so that you progress from broad understanding across the whole of biology at Stage 1, to engagement with current and recent research, often related to aspects of biology that your lecturers are investigating, at Stages 3 and 4. The programmes aim to develop your knowledge and understanding of the subject, your intellectual skills (such as the critical analysis of scientific information), your practical skills in laboratory and field work, and transferable skills such as the ability to communicate, to plan activities and to work both independently and with others.

Generally, there is continuity through the course even though it is divided into modules – modules at each Stage build on what you have learned in the previous Stage. Therefore, you should expect to be able to recall what you have learned previously. Note that some modules may require you to have studied other particular modules often in a previous stage.

The following sections summarise the content of the degree programmes and the features of each Stage. You can find detailed **aims** and **learning outcomes** for all our degree programmes in the Programme Specifications (<https://www.ncl.ac.uk/regulations/programme/>).

2.1 Key features of each degree

The Biology and Zoology degrees share a common first year. This allows you to switch freely from one of these degrees to another after Stage 1 if you find that your preference changes.

Biology

This degree programme allows you to undertake an academically coherent study of biology, whilst allowing you to choose topics focused on both cellular and molecular function and the environmental aspects of biology. The overriding aim is to give you a breadth of knowledge that will give you maximum flexibility in your future career path. The course focuses on how biological species (animals, plants and microorganisms) work, at scales ranging from the molecular to the whole organism, as well as how they interact with each other and their environment. Along with a core of modules dealing with organisms as functioning units and with biological processes, you may take optional modules dealing with ecology or with cell and molecular biology. This will give you an understanding of topics such as how organisms cope with stress (at both physiological and molecular levels) and the key roles that microbes play in the environment, both beneficial and harmful.

Zoology

Zoology is the scientific study of animals, including how they behave, reproduce, evolve, and interact with other species and their environment. Through lab-based teaching and field trips, you gain practical experiences with key laboratory and field techniques required by biologists. The first year is shared with Biology students, so that you have sound grounding in fundamental topics of biology that are important for understanding animals, such as plant biology, biochemistry, microbiology and ecology. In later Stages, you study more specialised topics focusing on aspects of animal biology such as behaviour and physiology, on particular groups of animals such as insects and vertebrates, on how animals interact with each other and with other organisms, and practical

problems such as the conservation of endangered species. The Stage 3 “Current Zoology” module encourages you to reflect on what you have learned during the course and its relevance to society in general.

2.2 Key features of each Stage

Stage 1

Stage 1 modules are broad in scope and complementary in subject coverage. They are chosen so that all Stage 1 students receive the same grounding in all the fundamental areas of biological science, regardless of entry qualifications. Study and reading patterns are quite strongly directed in first year, making extensive use of the *Life* textbook. An extensive study skills module gives you practice in finding and interpreting the published literature, writing and speaking on technical subjects, and processing and presenting quantitative data. In addition to the compulsory modules (100 credits of 120 total credits), you can choose one or two optional modules (totalling 20 credits) from a selection of six.

Stage 2

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 you are encouraged to develop a more individual and original approach to reading and report writing. Some modules are based around techniques and skills (e.g. statistics), so that by the end of Stage 2, you should be competent to carry out selected species identifications, and conduct biochemical, physiological and ecological analyses and experiments. You will also have had more experience of critically reviewing research papers, experimental design and data analysis, and the presentation of written and spoken reports resulting from your own work. The stage includes a week of intensive laboratory or fieldwork that takes place in term-time.

There is a module on Field Identification Skills in the summer between Stages 1 and 2.

This is compulsory for the Zoology degrees and optional for the Biology degrees. This normally takes place in the two weeks after the assessment period in Semester 2 (i.e. first two weeks of June), so **you need to make sure you are available in those weeks.**

Stage 3

Stage 3 modules are generally quite specialised and strongly informed by the research expertise of the academic staff. You are expected to apply the techniques and knowledge that you have learnt in earlier Stages to specific tasks. Your work should be highly self-directed and will revolve around the study of recent research literature.

At Stage 3 you will carry out an individual project worth 40 credits under the supervision of a member of staff. There are three kinds:

- Literature review project, involving a comprehensive analysis of published literature related to a substantial biological question, with novel synthesis and interpretation.
- Biological information project, producing and evaluating educational, training or promotional material related to biology.
- Research project, involving a substantial practical investigation of a biological question in the laboratory, in the field, or using a computer.

Projects are allocated on a competitive basis at the end of the Stage 2 year.

Please note that the exact nature of projects are subject to change in response to changing COVID-19 restrictions.

Please note that the option to carry out a research project will normally only be available to you if you have achieved an average mark of at least 60% for the modules taken in Stage 1 and Semester 1 of Stage 2.

Stage 4 (MBiol)

In Stage 4, you study modules that are at the same level as for a Master's degree and you carry out an intensive research project worth 60 credits (half of your marks for the Stage), under the supervision of a member of academic staff. In the project, you will build on the skills you developed in the Stage 3 project, so that you should be able to demonstrate original thinking and work quite independently.

To progress on the MBiol degree, you are required to achieve an average of at least 60% at Stages 2 and 3. If your average is lower, you will have to transfer to the BSc. Students can also transfer from the BSc to the MBiol.

2.3 Course Components

The compulsory and optional modules that together make up each stage of your Degree Programme are listed in the Regulations.

(The published Regulations relate only to the Academic Year in question, and they can change from one year to the next. Changes to the curriculum, or assessment, after you register for the academic year are rare, but you will be given reasonable notice where possible.)

Lecture material

Lecture material will be provided by asynchronous video sessions and written exercises via the CANVAS VLE (<https://canvas.ncl.ac.uk>). These will provide the outline for most modules, conveying the essential framework for information and ideas, directing you to further sources of information and allowing for questions and answers via synchronous online sessions and live discussion boards.

You are expected to supplement lecture material by undertaking additional reading in your private study time. Often your lecturers will provide information on directed reading via lecture slides, or links and lists on Canvas sites. The content of directed reading may routinely be assessed in examinations, particularly at Stages 2 and 3. In some instances, exam questions may be based entirely on such reading rather than lecture material.

Practical classes and field work

We strongly believe that Biology students need to learn by 'doing' in addition to hearing, seeing and reading. Practical work is therefore an important component of all our teaching programmes.

Practical classes are designed to teach you specific laboratory and field skills, illustrate facts and principles, enable you to develop an experimental approach to scientific investigation, give you experience of working alone, in pairs or teams, and learn to manage your time more effectively. They also provide data through which we can teach you skills in analysis and presentation, and a rigorous approach to data interpretation, statistical evaluation and scientific reporting.

Your performance in practical and field classes is assessed, in many cases through short submissions made soon after the day of the class.

As part of our charter for practical classes, taught students have key responsibilities in practical classes:

1. Arrive at practical classes at the scheduled start time. Be punctual. If you arrive late, you will miss both the health and safety briefing and the introduction to the practical and will not be able to take part in the practical class.
2. Follow instructions given to you by academic staff and demonstrators, and ensure you are working in accordance with health and safety guidelines.
3. Understand that demonstrators are research students in the school who are employed to

- teach so are professionals who have undergone training.
4. Treat demonstrators with the same respect you would a member of academic staff.
 5. Be proactive and ask sensible questions of academic staff and demonstrators to further your knowledge. This could be about the practical work, the theory behind it, or chosen careers in the field.

Practical work involving animals

Activities involving the use of animals or animal tissues in our teaching programmes include:

- dissection of a frog, a bird, and a small mammal
- recording electrical activity from nerve cells in insects
- collecting and preserving insects
- use of animal-derived products in biochemistry and microbiology practical classes

None of our teaching activities requires a Home Office License; however, project work might be on Licenced projects.

We do not formally make any arrangements for students to be excused from particular activities on moral grounds as it is impossible to define these activities exactly or to list beforehand exactly what a particular student might be asked to do throughout their study. However, Module Leaders might allow you to be an 'observer' rather than a 'participator'; or set you some related, but alternative, work for assessment if you have concerns with carrying out certain exercises.

Contact the Module Leader concerned **well in advance** if you think you need accommodation of this nature.

Group exercises

In some modules you will work in small groups of fellow students, either with individual staff, or unsupervised, to produce a joint piece of work for assessment (e.g. presentation, poster, report).

These activities are designed to facilitate:

- in-depth discussion and analysis of specific topics
- opportunities for you to present information and arguments orally and in writing
- exploration of shortcomings in understanding or knowledge
- teaching of quantitative techniques and student practice in their use
- improved team-working skills

Private Study

It is essential that you use the time when you are not engaged in timetabled activity to gain the maximum benefit from your Degree Programme. The tasks to be undertaken include reviewing lecture materials to ensure they are understood, completing directed reading, and connecting it to the lecture content and undertaking **Further Study** (see section on Assessment below for guidance on further study). In addition, there are reports to prepare on practicals, and various other tasks.

Whenever you are specifically asked to do so, you should prepare in advance for practical classes, tutorials and seminars, so that you get the most out of them on the day.

3. ASSESSMENT

The main assessment methods we use are:

- unseen written papers
- essays
- tutorials
- in-course tests (unseen and open-book)
- practical class assessments (various formats)
- posters
- oral presentations

The module outlines will explain the types of assessment that you should expect in each of your modules.

As explained in the School Degree Programme Handbook, all undergraduate work is marked by reference to a scale ranging from 0 to 100 which is outlined in the **Faculty Marking Criteria**. You may also receive more specific marking criteria for particular pieces of work; these will be made available by the module leader.

3.1 Submission of in-course work

Module Leaders will provide you with instructions for the submission of all in-course work (e.g. practical reports, tests, and essays). You will normally be expected to submit work for Biology modules (i.e. those with the module code prefix BIO) by 2pm on the day specified by the Module Leader, via Canvas. The procedure depends on the type of work, you will be given the necessary instructions before the submission deadline. A small amount of work may be submitted in hard copy instead of/as well as electronically. Before submitting any hard copy work to the office you must print off the appropriate cover sheet from the **NESS System** (<https://ness.ncl.ac.uk/>). After logging in there, simply follow these instructions:

1. Select a module code from top line.
2. Select the piece of Coursework from the drop-down list on the left.
3. Click on the plus sign next to Coursework on the menu on the left.
4. Select Header Sheets.
5. Choose Personalised Web page: this generates a printed sheet including your Name, Student Number, Module Number, Exercise and due date/time.

Sign the statement about plagiarism on this sheet and staple it to your work before submitting.

You should ask the Module Leader if these are not clear to you from emails or the Canvas site for the module.

Keep secure electronic copies of all your in-course submissions on your OneDrive, or H: drive space on the university computer network. Do not rely on USB drives, or personal computers for assignments.

3.2 Progression and award of degrees

You must achieve an average mark of **40%** or more to progress from Stage 1 to Stage 2, or from Stage 2 to Stage 3. Provided your average mark is at least 40%, you can pass Stages 1 and 2 modules with marks of 35-39% for up to 40 credits in each year. This is called passing by 'compensation' (in view of better performances in other modules). If you have any marks below 35% or you have marks below 40% in more than 40 credits, you will be required to be re-assessed in all the failed modules. Students taking the MBiol can also pass modules at Stage 3 by compensation. For Stage 4 of the MBiol, the pass mark is **50%**.

If there are good reasons to do so, as in the case of medical or other circumstances, which significantly affected your performance, the Board of Examiners may allow you to pass modules even though compensation is not possible. This is called passing by 'discretion'. It requires that the proper PEC procedures are followed, as explained in the School Degree Programme Handbook.

Students are assessed for final **BSc Honours** performance on the basis of marks in all modules taken at Stage 2 and Stage 3. Stage 2 modules contribute 25% towards Honours performance, whilst Stage 3 modules contribute the remaining 75%. For the **MBiol**, Stage 2 contributes 16.7%, Stage 3 contributes 33.3% and Stage 4 contributes 50%.

Modules passed by compensation, discretion, or following a resit automatically carry a mark of 40% (Stages 1, 2 and 3) or 50% (Stage 4) for the purposes of calculating your average mark for the Stage, or the overall average for the degree.

Your degree class is awarded on the basis of your overall final percentage mark as follows:

- <40% : Fail (but see below concerning Pass Degree)
- 40–49%: Third Class Honours (BSc) or Fail (MBiol)
- 50–59%: Second Class Honours, Second Division (2:ii)
- 60–69%: Second Class Honours, First Division (2:i)
- 70%+ : First Class Honours

Failure of up to 20 credits beyond Stage 1 does not affect your right to an Honours Degree or MBiol.

An MBiol student who fails the final year can be awarded a BSc Honours degree. A BSc student who fails more than 20 credits, but has a final average of at least 35% and passes at least 60 credits at Stage 3 and 300 across all three Stages can be awarded a Pass Degree. If your marks are below this standard but you pass 240 credits you will be eligible to receive a Higher Education Diploma, or for 120 credits a Higher Education Certificate.

BSc students who fail to achieve an Honours degree and MBiol students who fail the final year are entitled to one resit attempt for any failed final year modules.

3.3 Study beyond the course material for exams: questions and answers

What is reading beyond the course material for?

Reading beyond the course material has two main uses:

- To improve understanding of material presented in lectures.
- To add information and insight beyond that presented in the lectures.

What is reading beyond the course material?

"Course material" is material presented in lectures **and** material that students are **expected** to read to give more complete coverage of a topic than that provided by the lecture alone. Such required material should be precisely defined, for example, a specific article or specific pages from a textbook, and students must be told that it may or will be directly assessed. Material that demonstrates reading **beyond** the course material could come from lists of **recommended** reading provided by lecturers, as well as from students' independent searching of the literature.

How important is study beyond the course material?

According to the SAgE Faculty Marking Criteria:

- A first-class (undergraduate) or Distinction (postgraduate) answer will include coverage of the topic that is thorough, relevant and accurate, and substantively beyond taught material.
A 2.i (undergraduate) or Merit (postgraduate) answer "is relevant and accurate with few errors and

omissions and includes most of the expected material in detail and goes beyond the taught material”.

If an exam question is well constructed, then answering it properly should meet the 2.i or Merit criteria, as the answer will need to deploy information in new ways.

The document setting out the faculty marking criteria states that the criteria “are intended as a guideline only and criteria will not necessarily apply equally to all pieces of assessed work”. Evidence of reading beyond the course material is only one of the criteria for a first-class answer and the relative importance of the different criteria will depend on the type of assessment and the intended learning outcomes. Therefore, module leaders should provide guidance to students on expectations.

How does an exam answer get credit for reading beyond the course material?

When included in an exam answer, material from such wider reading should clearly enhance that answer. It is generally more important to show a high level of understanding of delivered course material than to add small or irrelevant pieces of information from additional reading.

To receive credit for reading beyond the course material, it is not necessary to give citations. However, at least an approximate indication of the source, such as an author and date, can help the marker assess the validity and value of the information provided.

4. HEALTH AND SAFETY

4.1 General safety

The University ensures that this is a safe place for students to study and undertake research.

You must comply with the University's arrangements for safety and occupational health, which are set out in the **University Safety Policy** (<https://newcastle.sharepoint.com/hub/orghas>) and the respective School safety policies. It is especially important that the University fire safety rules are complied with as these are in place in order to protect lives.

Assistance can be obtained from the School Safety Officer on all safety and occupational health issues and, if necessary, from the University Safety Office. Failure to comply with the University Safety Policy is a disciplinary matter. For some high hazard work, you may be expressly required by law to undertake training, which is provided by the University Safety Office.

Use common sense at all times, keep a look out for hazards, and anticipate risks to yourself and others. Safety policies are available for consultation, and relevant details are displayed in laboratories and elsewhere. If you believe, there is any cause for concern (e.g. chemical leakage, fire, dangerous behaviour) wherever you are in the university, seek advice or help immediately from any member of staff.

Hazardous conditions can only be rectified if they are recognised, so if at any time you see something, which appears unsafe within the School, please get in touch with the School Safety Officer.

Emergency Telephone Numbers from within the University (prefix with 0191 20)

- Fire, Police or Ambulance: 6666 or 9-999
- First aid: the nearest contact is listed in each working area
- Estates Defects Help Desk: 87171
- University Security Control Centre (Armstrong Building; 24 hours) 86817

On discovering a fire:

- Shout "Fire! Fire!" and set off a fire alarm.
- Ring 6666 or 9-999 to call the Fire Brigade.
- Tackle the fire only if this can be done without significant personal risk.

On hearing the Fire Alarm:

- Switch off any apparatus immediately, close doors and windows and evacuate the building using the nearest stairs.
- Never use the lift during a fire alarm.
- Assemble outside the building in designated safety areas where others are gathering, to enable fire wardens to check that everyone has been evacuated.
- Never re-enter a building until you are told to do so by a Fire Marshal.

Students with a disability must contact the Safety Officer so that a Personal Emergency Evacuation Plan (PEEP) can be drawn up for all the University facilities that they will be using.

Safe working in lab practical classes and during individual project work in labs

- All practical classes in labs are supervised by a member of academic staff or another appointed employee of the university; they may be assisted by postgraduate students acting as Demonstrators.
- Please LISTEN to all instructions you are given and FOLLOW said instructions. If in doubt always ASK for clarification.
- Accidents and near miss accidents must be reported to the Safety Officer. Accidents involving

personal injury must be entered on the appropriate **accident reporting form** (https://newcastle.sharepoint.com/hub/orghas/Pages/safety_reporting.aspx).

- First Aid cabinets are located in all laboratories.
- Before any practical work for an undergraduate research project (NES3505) is undertaken, a written Risk Assessment and all other necessary forms (e.g. COSHH, BIOCOSHH and Fieldwork Risk Assessment) must be completed. Forms are available from the School Safety Officer or the School Office. These tasks must be undertaken in collaboration with the Project Supervisor and/or the School Safety Officer.

Work out of hours

No undergraduate student is allowed in School of Natural and Environmental Science buildings outside normal working hours (8.30am – 6.00pm), at weekends or on any day when the University is officially closed. Exceptions are only allowed if adequate supervision and monitoring arrangements appropriate to the situation have been organised and approved by the School Safety Officer in advance.

Smoking

Smoking is not permitted anywhere on the University Campus (including open spaces) except in designated smoking areas.

4.2 Chemicals and laboratory work

It is your responsibility to ensure that no chemical gets into your mouth or eyes, or onto your skin, by using appropriate procedures with due care and attention, and by wearing suitable protective clothing. If an accident does occur, the following procedures must be followed:

Chemicals in the mouth

Pipetting by mouth is prohibited. Any chemicals getting into the mouth must be treated as poisons. Spit out and flush copiously with water if appropriate. If swallowed, immediately tell the member of staff in charge and if necessary, they will arrange for you to be taken immediately to the Minor Injuries Unit in the Royal Victoria Infirmary (RVI) next to the campus.

Chemicals in the eyes or on the skin must be treated as toxic

Immediately flush copiously with water. Irrigation bottles are provided in all laboratory areas. Some teaching laboratories also contain emergency shower facilities. Tell the member of staff in charge, and if necessary, they will take you to either the Minor Injuries Unit or the Eye Department in the RVI.

Breakages and spillages must be dealt with immediately

Put broken glass in the bins provided labelled 'Broken Glass' and any other sharp object for disposal into the bins marked 'Sharps'. Never put sharps into any container not designated for such disposal. Pay due regard to the hazards when clearing up spillages. Extinguish naked flames and electric heaters if inflammable volatiles are spilled. Pour on copious amounts of water in order to dilute acids and alkalis, or sprinkle with a neutralising agent (sodium bicarbonate for acids). Safety posters on laboratory walls may give specific advice. Report breakages, spillages and damaged or stained benches or floors to the supervisor of the practical class, who may ask you to report them to the appropriate senior member of technical staff for action.

No chemical waste is to be poured into sinks for disposal

All chemical waste must be placed into designated bottles for disposal by contractor.

Eating and drinking

Is only permitted in common rooms and foyer spaces, and never in laboratories or lecture theatres. Take off your lab coats and wash your hands before eating or drinking in permitted

spaces.

Toilets

Toilet facilities are available on all floors of the Ridley Building. Remove lab coats and wash your hands BEFORE visiting the toilet.

4.3 Tetanus

An injection against tetanus is mandatory for all biologists. A booster is required every ten years. This is your responsibility. Persons who are unable to have this vaccination for whatever reason must complete the appropriate form in the School Office.

4.4 Field work

Separate risk assessments will be made, and safety instructions issued, for all class or project activities to be undertaken in the field and off campus.

4.5 Pre-existing medical conditions

You are obliged to report certain medical conditions to the School Safety Officer. These include pregnancy, epilepsy, hepatitis, diabetes, allergies, haemophilia and HIV, but this list is not exhaustive.

An electronic form must be completed at the beginning of each Academic Year or at any other time if your medical circumstances change. This information will be kept in the strictest confidence and will only be used to assess and address the health and safety risks that some practical and fieldwork may pose to those individuals having such conditions.

If you have a specific allergy to materials to be used in lab practical classes (e.g. shellfish, bird feathers, mammal fur, latex), alert the Module Leader in advance and do not enter the lab. Expect to be set an alternative task for assessment purposes.