Undergraduate Degree in Biological Sciences
FIRST YEAR HANDBOOK 2017-2018
Version 1.0

Issued to first year students and to College Tutors in October 2017
(for cohort 2017-2020)
THIS HANDBOOK SHOULD BE READ IN CONJUNCTION WITH THE PRELIMINARY EXAMINATION CONVENTIONS AND WITH COMMUNICATIONS FROM THE CHAIRMAN OF EXAMINERS OF THE PRELIMINARY EXAMINATION IN BIOLOGICAL SCIENCES.

Please note that the information published in this First Year Handbook supercedes that in any previous handbooks.

Photograph acknowledgements:
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This handbook applies to students starting the course in Michaelmas term 2017. The information in this handbook may be different for students starting in other years.

The Examination Regulations relating to this course are available at http://www.admin.ox.ac.uk/examregs/2017-18/peinbiolscie/studentview/, and the course Examination Conventions are available on WebLearn at https://weblearn.ox.ac.uk/x/xsmrZk. If there is a conflict between information in this handbook and the Examination Regulations/Conventions then you should follow the Examination Regulations/Conventions. If you have any concerns please contact the Biology Teaching Administration Team (undergraduate.teaching@biology.ox.ac.uk).

The information in this handbook is accurate as at 1st October 2017, however it may be necessary for changes to be made in certain circumstances, as explained at www.ox.ac.uk/coursechanges. If such changes are made the department will publish a new version of this handbook together with a list of the changes and students will be informed.
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A. INTRODUCTION

A.1 Welcome to Biological Sciences at Oxford

The first year of your Biological Sciences degree (often referred to as Biology by staff and students) should be a fascinating and challenging time. As a starting point, you will receive an introductory lecture to the course from me on Friday of 0th Week Michaelmas Term.

Don’t worry if you’ve missed or forgotten anything you were told in this lecture - it’s all in this handbook. Another detailed source of information, which includes course-related material and recommended reading, is found on the Biological Sciences WebLearn site.¹

You should have already received your induction pack at your introductory lecture - the talks that were given are available on WebLearn via the First Year Orientation Talks link. Pay particular attention to the lecture timetable and instructions for attending practicals, which start on Monday of your first week of this term. The timetable is published on a termly basis and made available on WebLearn. Please consult this frequently. Any changes to the timetable will be sent to your College email account, so it is very important that you check regularly for updates.

You will rapidly become immersed in your course, but please remember we will always be happy to receive your comments and that we are available to offer help and guidance at any time if appropriate. Note that your College Tutor will be able to advise on academic and pastoral matters. We hope you will find your time at Oxford a rewarding and enriching experience.

We are always interested to hear your views on the course, and indeed there is a special committee, the Joint Consultative Committee (JCC), that meets once a term to consider feedback from junior (student) members. Information received at your induction contains instructions explaining how to nominate your two year-group representatives to sit on this Committee.

Prof. Peter Darrah
Director of Undergraduate Teaching

¹ Also see Section A.3 (e)) at: https://weblearn.ox.ac.uk/portal/hierarchy/mpls/xmpls/biology
A.2 Why you should keep and use this Handbook

This Handbook maps out the first year course and explains how to handle lectures, practicals and tutorials. It also provides lots of contact points for teaching, assessment, welfare and so on. We strongly suggest that you find time to read it all, and keep it somewhere accessible for future reference. As part of your exam preparation, you should re-read Section D, which explains the Preliminary Examination in detail.

If you lose your paper copy of this handbook, it can be downloaded from the Course Handbook area of WebLearn. Any links referred to are listed at the end of this handbook - in the electronic version they are hyperlinked in situ.

A.3 Course-related information

(a) Teaching Administration Team

Director of Undergraduate Teaching:
Prof. Peter Darrah (peter.darrah@plants.ox.ac.uk)

Deputy Director of Undergraduate Teaching:
Prof. Rosalind Harding (rosalind.harding@zoo.ox.ac.uk)

Undergraduate Studies Administrator (Examinations): Dr Céline Clavel
Undergraduate Teaching Coordinator: Mrs Siobhan Organ
For any matters relating to teaching or examinations email the Biology Teaching Administration Team: undergraduate.teaching@biology.ox.ac.uk.

Practicals Coordinator and Teaching Technician (for matters relating to practical groups and write-ups):
Dr Asya Naish (asya.naish@plants.ox.ac.uk)

Disability Contacts for Biological Sciences:
Lead – Prof. Peter Darrah (peter.darrah@plants.ox.ac.uk)
Coordinator – Mrs Siobhan Organ (siobhan.organ@zoo.ox.ac.uk)

(b) Academic staff contacts

The first year course comprises four main themes – Cells and Genes, Ecology and Evolution, Organisms and Quantitative Methods. Each theme has a Theme Organiser who is responsible for the content and organisation of their theme and can be contacted if there are questions related to their individual area of teaching.

Cells and Genes:
Theme Organiser: Prof. Hugh Dickinson (hugh.dickinson@plants.ox.ac.uk)

Ecology and Evolution:
Theme Organiser: Prof. E.J. Milner-Gulland (ej.milner-gulland@zoo.ox.ac.uk)
Orielton Fieldcourse Organiser: Prof. Alex Rogers (alex.rogers@zoo.ox.ac.uk)

Organisms:
Theme Organiser: Mr Timothy Walker (timothy.walker@some.ox.ac.uk)

Quantitative Methods:
Theme Organiser: Prof. Andrew Hector (andrew.hector@plants.ox.ac.uk)
Please note that at the top of each individual theme or practical page on WebLearn you will find the name of the Theme Organiser and their hyperlinked email address.

The University Website provides a search facility to find the email addresses of individuals throughout the University. The normal format of University emails is:

firstname.lastname@department.ox.ac.uk or firstname.lastname@college.ox.ac.uk

N.B. in email addresses the department names are abbreviated to plants and zoo. Some colleges also use abbreviations (e.g. magd, stcatz, worc).

(c) Student representatives

Two students will represent your year group as members of the Biological Sciences Joint Consultative Committee (JCC). Further information regarding the role of the JCC representatives is found in Section F.1 (b) of this Handbook and on WebLearn. After your course induction at the start of Michaelmas Term, the Teaching Administration Team will contact you by email to confirm how and when you can nominate your chosen representatives. Once your two representatives have been elected their names and contact details will be confirmed via email and on WebLearn.

(d) Useful numbers

Plant Sciences (Reception): (2) 75000

Zoology (Reception): (2) 71234

Oxford University IT Services, Banbury Road: (2) 73200

Radcliffe Science Library: (2) 728000
(e) WebLearn

Biology resources on WebLearn, the University’s Virtual Learning Environment (VLE), provides you with instant access to information on your course. Once you have been issued with your Oxford Single Sign On/email username and password, before or during 0th Week of your first term, you will be able to access WebLearn.

You can access this site from any computer linked to the Internet but you will need to log in using your Oxford Single Sign On to access the Biological Sciences pages.

When you log into WebLearn, if you wish to access a site that you are a member of, but you are not sure how to find, please select SITES from the menu at the top right hand side of the screen - this will bring up a list of all sites that you are a member of, and if you select ‘Biological Sciences Teaching’ you will be redirected to the Biology homepage.

The Biology WebLearn pages follow the structure of the degree course. Sub-menus for the Preliminary Examination (first year) and the Final Honours School (FHS - second year and third year) are found via the Biological Sciences Home Page. A series of links will then take you to an introduction to each of the main themes, and from here you can find lecture and practical titles and synopses, additional reference material, and, in most cases, additional handout materials (found below the lecture/practical information).

The Biology ‘Electronic Timetable’ for each year group is available in the main menu of their year page on WebLearn. The teaching timetable will automatically be made available here shortly before the start of each term. Section C.2 (a) provides further information.

There are many additional types of resource posted on the Biological Sciences WebLearn site. Among these are:

- Examiners’ reports;
- Exam Marking Schemes;
- Feedback questionnaire summaries;
- Joint Consultative Committee minutes;
- Steering Committee minutes;
- Course handbooks.

Please note that lecturers may choose to include their lecture handouts and/or slides on WebLearn but they are not obliged to do so.

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2 https://weblearn.ox.ac.uk/
(f) **Important dates**

Dates of University Full Term 2017-18:

- Michaelmas Term 2017 – from Sunday 8th October to Saturday 2nd December 2017;
- Hilary Term 2018 – from Sunday 14th January to Saturday 10th March 2018;
- Trinity Term 2018 – from Sunday 22nd April to Saturday 16th June 2018.

Future University term dates are available on the [University website](#).

- Deadline for submission of practical write-ups (see Section D.6 for further details):
- Monday and Tuesday, 1st Week Trinity Term, 8.30am-4.00pm
- Orielton fieldcourse: Friday 18th May to Friday 25th May 2018 (inclusive)
- Preliminary Examination: usually all first year Biological Sciences examinations take place in 9th Week of Trinity Term. Dates and times will be confirmed in Trinity Term 2018.

(g) **Departmental opening hours**

Department of [Plant Sciences](#) – 8.30am-5.15pm; Monday to Friday
Department of [Zoology](#) – 8am-5pm; Monday to Friday

Undergraduate students are expected to work within each department’s normal opening times, including computer rooms, and to leave at or before normal closing time.

**A.4 College-related information**

Every student at Oxford has to belong to a College, whatever degree they may be studying. As a biologist, you will be a member of one of the 21 undergraduate colleges which admit students studying this subject and will be assigned a Tutor by your College (probably the same person that interviewed you). It doesn’t really matter which College you are at: all of your lectures, practicals, classes, fieldcourses, projects and so on are organised centrally by the University Departments of Plant Sciences and Zoology. Your exams are set, marked and graded by these same institutions.

Your College Tutor has an important advisory role. They will be a biologist, and a member of either Plant Sciences or Zoology who is appointed by your College to look after many aspects of your education and welfare. He or she is the first port of call for advice on all manner of things from course structure, exam systems, field work, project choice, specialist tuition, career directions etc. They are also often a good source of information about social events within college, and a friend with whom to talk about personal problems and difficulties. Most crucially, it is your College Tutor who will advise on and often directly arrange your tutorials each term (see below for details about tutorials). He or she will receive the reports of your termly subject tutorials, as well as the results of your College collections (unofficial exams held in colleges). Using this information, your College Tutor will discuss your progress with you on a regular basis. Note that your College Tutor is also likely to be a lecturer in one of the biology departments, so you will probably see the same person throughout your 3 years at Oxford in various different guises. Never hesitate to ask questions of your College Tutor – if they don’t know the answers, they will probably know someone who does.
B. THE COURSE, CONTENT AND STRUCTURE

B.1 Degree course overview

The Bachelor of Arts in Biological Sciences is taught jointly by the Department of Plant Sciences and the Department of Zoology. This three year course leads to a single honours degree in Biological Sciences. Biological Sciences is an exciting and rapidly developing subject area - the study of living things has undergone tremendous expansion in recent years, and many topics are advancing very rapidly.

The Quality Assurance Agency for Higher Education (QAA) produces subject benchmark statements which provide information about the nature and standards of awards in a particular subject. To download the relevant Biosciences subject benchmark statement please visit the QAA website.

(a) Aims of the degree course

The aims of the programme are:

- to educate students with high potential on an equal opportunity basis by providing them with a learning environment which encourages them to achieve their academic and personal potential;
- to give a grounding in both the conceptual approaches and practical techniques used in modern biology by teaching a curriculum that reflects modern research within a framework of established scientific principles;
- to draw upon specialisms within the teaching/research staff, in order to provide cutting edge and immediately relevant education based on a core foundation of biological sciences in its widest sense;
- to provide training in relevant transferable skills for a career in the life sciences, medicine, the environment and wildlife, industry, teaching, politics, journalism, or a commercial environment;
- to provide suitable training, and application of acquired skills, to equip graduates for research careers in most areas of biological research.

(b) The structure of the degree course

The teaching is designed to deal with individual topics in some depth, and especially to transmit the excitement of modern biology. The first year of the course is intended to provide a broad overview of biology and to prepare you for the more specialised themes offered in the second and third years. Together years 2 and 3 comprise the Final Honours School (FHS) in Biological Sciences.

The first year course is separated into four major themes: Cells and Genes, Ecology and Evolution, Organisms, and Quantitative Methods (Quantitative Methods spans the first and second year of the course with an examination at the end of year 2).

In the first two terms of the 2nd year, you will take two compulsory themes, Evolution and Quantitative Methods, which underpin the other six themes that are offered in the 2nd year: Adaptations to the Environment; Animal Behaviour; Cell & Developmental Biology; Disease; Ecology; Plants & People. You must also perform satisfactorily in, at least 3 of the 6 practical
topics that are offered: Biodiversity Survey & Analysis; Experimental Evolution; Infectious Disease Control; Molecular & Cellular Biology Techniques; Observations & Experiments in Behaviour; Plant Adaptations – Wild & Domesticated.

In the third year, around 24 Specialist Options are offered. You are free to select any combination from these options, which cover the full breadth of active research in the Departments. Teaching begins in Trinity Term of year 2. The third year Options may be varied from time to time by the Biological Sciences Steering Committee and will be published on WebLearn and in the FHS Handbook Section 2, which is distributed by the end of Hilary Term in your second year.

Information regarding all components of the three year course (including lecture lists and synopses, lecturer details, practical details, timetabling information and reading lists) can be found in detail on WebLearn.

B.2 Structure of the first year

All components of the first year are compulsory and it is expected that you will attend all of it. First year teaching is divided into four major Themes, three of which (Cells and Genes, Ecology and Evolution, Organisms) form the basis of the three written papers sat in late Trinity Term (see Section D). On WebLearn you will find further details of each theme, a synopsis of each lecture plus details of relevant references and websites, and many downloadable handouts.

Summaries of the four first year Themes are given below.

(a) Cells and Genes

Cells and Genes focuses on the molecular mechanisms and networks that determine cell structure, function and inheritance. This theme provides an introduction to a fast-growing area in contemporary biology; one of its key aims is to explain how an appreciation of events at the cellular level can lead to a greater understanding of the properties of organisms.

This theme runs in Michaelmas Term, Hilary Term and Trinity Term. You should expect to attend up to 40 lectures in Michaelmas Term, 35 lectures in Hilary Term and up to 8 lectures in Trinity Term. You should also expect to attend around 6 hours of practicals in Michaelmas Term and 23 hours of practicals in Hilary Term.

(b) Ecology and Evolution

This theme consists of two parts - one given in Oxford in the first half of Trinity Term and one compulsory week-long fieldcourse in South Wales. Both are examinable.

(i) Ecology and Evolution lectures in Oxford

The lecture course begins by outlining the main principles of population ecology, from how populations grow to how to harvest them sustainably. The lectures then move on to look at how environmental constraints and resource limitations regulate the size of species populations, and how species interact; both at the same trophic level (competition) and between trophic levels (predation, disease). We look at how communities and ecosystems function, and how these interactions lead to patterns in biodiversity. The second half of the course covers the fundamentals of evolution, including adaptation, coevolution, population genetics and molecular evolution. Finally we bring the
two parts of the course together by considering conservation genetics, and how ecology and evolution are applied in the real world, both in government policy and conservation. This theme runs in Trinity Term only. You should expect to attend around 40 lectures. You will also attend the compulsory week-long Orielton Fieldcourse, which examines the interactions between organisms and their environment, and how this affects their evolution.

(ii) Ecology and Evolution Fieldcourse

The Fieldcourse is a compulsory part of the first year course and both the lecture and practical material is examined as part of the Prelim written papers. It introduces you to fieldwork in a setting rich in habitats and biodiversity, and provides the practical component of the Ecology and Evolution theme, with an emphasis on whole organism biology and a holistic approach to ecology. The Fieldcourse concentrates on teaching students fieldwork techniques in structured activities, which are each led by a member of staff. Broadly, an equal amount of time is spent on plant and animal activities with topics ranging from the ecology of plants on sand dunes to the species richness in rock pools on the seashore.

The structure of each day will depend on the kinds of organisms and habitats being studied, but you are typically introduced to each topic with a short explanatory lecture, followed by time in the field collecting samples or observations for further analysis later in the day and preparing a short write-up of the day’s activities. At the end of the week, you will engage in further group-based learning activities to test what you have learned. Additional activities such as moth trapping, camera trapping and acoustic surveys for bats are also undertaken in the evenings.

You will leave Oxford and travel to Orielton on the morning of Friday 18th May 2018. You should expect to be back in Oxford on the afternoon of Friday 25th May 2018.

(c) Organisms

The central core of a degree course in Biological Sciences has to be a detailed and wide-ranging investigation into the myriad variety of living organisms. Without a foundation in the biology, ecology, physiology, behaviour and taxonomy of microbes, fungi, animals, and plants, no further advanced work is possible. Most importantly, all biology students should have an innate curiosity about living organisms and be able to make the links between these species in their habitats.

This theme runs in Michaelmas and Hilary Term only. You should expect to attend around 40 lectures per term. At the start of Michaelmas Term you will attend introductory visits to the University Botanic Garden and Museum of Natural History. In addition to this, in Michaelmas Term you should expect to attend around 43 hours of practicals and in Hilary Term you should expect to attend around 9 hours of practicals.

(d) Quantitative Methods

Biology is a quantitative science. Understanding mathematical models, the manipulation of quantitative data and the correct application of statistical analysis are all essential skills for a
biologist. It is also essential to be able to understand analyses used in published papers in order to decide on the validity of the conclusions.

Hilary Term is devoted to the teaching of Statistics and involves computer classes (8) where lecture material and hands-on practical experience are combined in a single session. Note that one or two topics in Hilary Term are preceded by a lecture. Trinity Term is devoted to Mathematical Modelling (4 sessions) and illustrates some of the concepts dealt with in lectures mainly in the Ecology and Evolution course.

(e) Tree of Life Cross-Theme Practical

This practical class integrates aspects of the Organisms and Cells & Genes themes. During the invertebrate zoology practicals in Michaelmas term you will collect samples of invertebrate tissue for storage. You will then, alongside extra samples from the University Parks, learn how to extract genomic DNA from these, and to use PCR to amplify a specific gene from each sample. Successfully amplified products will be sequenced, and you will use the sequence data in a series of bioinformatic analyses.

All sessions take place in Trinity Term. You should expect to attend an introductory lecture at the start of term and then four practical sessions in one week (each between 2-5 hours in length but normally up to 3 hours in length). You might also choose to attend a computing session midway through term to work through your practical results and analysis.

B.3 The Preliminary Examination

The Preliminary Examination in Biological Sciences is a year-long course of teaching and practical classes leading to what is called the First Public Examination (FPE). All students have to pass the FPE before they can progress to the Final Honours School. You sit the FPE (also known as the Preliminary Examination or ‘Prelims’) at the end of Trinity Term (normally 9th Week).

The University awards degrees and is, therefore, responsible for examining them. A description of the formal requirements for each examination is published annually in the University’s Examination Regulations: please note that these are the official source of the information about your degree and takes precedence over any other form of literature about your course. You will be informed in good time about the precise arrangements for your examinations. From year to year there may be slight changes to these arrangements, for instance to the exact format of the papers. If there are aspects of the Regulations about which you are uncertain, you should consult your College Tutor in the first instance.

Another document that explains many valuable details about examination procedures is called the Examination Conventions, which you can download from Preliminary Examination Information on the First Year area of WebLearn – see Section D.3 for further information. Any information in these conventions takes precedence over information in this Handbook.
C. TEACHING AND LEARNING

Teaching and learning at University differs considerably from that at school. There is no externally defined syllabus and instead the syllabus is determined by the lectures and practicals. There is little continuous assessment – instead we expect a much higher degree of synoptic learning and synthesis that only comes from a deep understanding of the subject material. In general you are far more reliant on your own assessment of your progress and that initially can be difficult to deal with but will quickly become second nature for you. Some ongoing feedback on your progress is provided and this is detailed in the sections below.

C.1 Components of teaching and learning

There are four main components of teaching in the first year, all equally important, namely lectures, practicals, computing classes and tutorials. Management of lectures, practicals and classes are the responsibility of the Departments of Plant Sciences and Zoology. Management of first year tutorials are the responsibility of your College.

Lectures for the first year are normally held in the Museum of Natural History Lecture Theatre. Computing practicals are held in the Computing Suite in the Department of Plant Sciences. The remaining practicals are held in a number of different locations: the Museum of Natural History; the John Krebs Field Station Teaching Lab at Wytham; the Plant Sciences Teaching Lab; and the Modular Biology Teaching Lab on Mansfield Road. The times and venues of lectures and practicals are confirmed in the published termly Lecture List, which can be found on WebLearn (see Section C.2 (a)). Any alterations to the scheduled times or subjects will be published well in advance whenever possible.

If you have any issues with teaching or supervision please raise these as soon as possible so that they can be addressed promptly. Details of who to contact are provided in Section G.4 Complaints and Appeals.

Please refer to Section C.1 (a)(ii) below and Section D.4 Good academic practice for advice regarding note-taking, referencing and other useful skills you will need to acquire. Patterns of teaching are given in Appendix 1.
(a) Lectures

(i) What is a lecture?

Lectures are designed to communicate information and to provide a framework for further discussion of each topic. Although we hope that the lectures will awaken curiosity and spark interest, their primary function is to provide you with factual information and to explain concepts. Most of the discussion, expansion or clarification of the information and concepts is handled in tutorials, practical demonstrations and on fieldcourses.

You will experience a considerable range of lecturing styles and differing uses of visual aids. Individual lecturers differ in which approach they find most useful, and individual students vary as to how they acquire and synthesise material presented in lectures, but the tips given here may help you to get the most out of lectures.

Lectures are designed to cater for undergraduates from widely different school and college backgrounds, and for this reason some parts of the course may appear easy to start with, while others may seem difficult. Nevertheless, you are very strongly advised to attend all lectures and to discuss any course-related problems you may encounter with your College Tutor. Although a brief outline of the course is published in the University’s Examination Regulations, the detailed syllabus on which the Preliminary Examination is based is defined by the lectures (see WebLearn).

Lectures are normally timetabled as one hour in length but the actual running time should be around 50 minutes, normally starting 5 minutes after the scheduled start time. However, you should arrive at the scheduled start time to allow everyone to be seated in time for a prompt start. It is rude to arrive late, it can be disruptive and you may miss the vital introduction that sets the scene for the whole lecture.

(ii) What you need to do

Taking notes and making the most of handouts

Most, but not all, PowerPoint presentations of lectures or lecture handouts will be available from WebLearn. However, this is not mandatory and some lecturers may choose not to include them (or not to include them in full).

You are expected to take hand-written notes during lectures - please note that audio recording of lectures is forbidden without prior written consent (see Section C.2). Efficient note taking is a skill you will need to develop. It is most important to record key points, meaningful phrases, diagrams and any questions that occur to you. Make sure you bring plenty of your own paper and writing implements. Each lecture will cover a number of topics, and the most important information is likely to be summarised in lecture handouts. Some or all of the more complex diagrams may be given in the handouts for you to annotate during the lecture but don’t expect the entire lecture to be duplicated in lecture handouts. Most people do not absorb material that is simply presented to them so it is extremely useful to go over your notes and diagrams after the lecture to organise them in a form that makes sense to you, and to check on any points of uncertainty by reference to the reading lists.
Sources of information

In the 1st year much of the material is contained in core texts, details of which are given on WebLearn alongside each section of the course. You should expect to find these core texts in your College library as well as in the University Radcliffe Science Library (RSL). You should take note of the borrowing restrictions that apply in each library and the fines that you will incur if you fail to return items in time. You should also encourage your College library, perhaps through a recommendation from your Tutor, to acquire copies of the most important textbooks listed in the course pages and on WebLearn. Please consult your tutor if your College library refuses to help.

Most lecturers will provide a list of books, reviews and/or original articles, either as part of their lecture handout or separately on WebLearn. This material is provided to support your understanding of a topic but realistically, you are unlikely to have enough time to do this reading full justice until the vacations. Reference lists are also given to provide you with a number of access points into the literature in preparation for tutorials. These lists may include key articles that were explicitly mentioned in lectures. You may need to read some of these to clarify specific points made in the lecture but there is no expectation that you should read and take notes on all of them. In some cases, the reference list will contain all literature cited in the lecture, which may be a substantial list and you would not be expected to read every article. However, it does provide you with guidance should you wish to develop the lecture topic further. If you are not clear about the intention of the lecturer when they present you with a list of references ask for clarification at the time. Guidance to reading material is provided to help you develop a clearer understanding of a lecture topic. Be prepared to read selectively - there is no expectation that you should, or could, read everything that is provided.

During the first year, you will be expected to develop the skills necessary to read the original research literature. In the second year there will therefore be a correspondingly greater emphasis on research papers in your reference material. The use of literature searches and electronic publications via the Web of Science or Web of Knowledge is now routine. You will be told about these resources in the first few weeks of your time at Oxford.

(iii) Feedback

There is no formal feedback for lecture material. Indirect feedback is provided via College Collections and tutorials. This means that self-generated feedback is very important and you are strongly advised to test yourself on your understanding of lecture material. A useful technique, such as summarising the key points in a bulleted list or reproducing one of the main diagrams, can dramatically increase your recall and understanding of the subject material. It is worth doing at least some of this when the information is fresh in your mind but it is also expected that you will spend part of the vacations consolidating each term’s work. As an absolute minimum you should read through your lecture notes on a regular basis to make sure you fully understand them.
Practicals have many useful functions, including teaching you key practical skills, such as sterile technique, training you in experimental design, giving you first-hand experience of advanced technological developments both in the lab and field, providing an opportunity to highlight or expand aspects of the lecture course, and training you in basic safety procedures. Modern biologists must know how, for example, to use a microscope, run a gel, catch insects or record plant species in a habitat. Many of the techniques you learn will be invaluable when you start your own Final Honour School Research Project – normally in Trinity Term of year 2.

Most of the information that will be presented to you during your lectures has been produced by experiments or field surveys following the scientific method. Practicals provide you with an opportunity to become acquainted with the scientific method first-hand. The method is iterative but in essence it involves the following steps:

- To propose a hypothesis that explains a new set of data, or that is compatible with the existing data;
- To test the hypothesis rigorously by experiment or sampling;
- To accept, reject or modify the original hypothesis to accommodate the experimental results.

A hypothesis that survives an extended period of testing is often formalized as a theory. Some of the most exciting practicals are designed to test current hypotheses and may well change on a regular basis as each subject advances.

You should carry out the set practicals competently, understanding what you are doing or have done (ask the demonstrators if you don’t), and keeping a clear account of any observations or measurements made. You need not reproduce the information provided on instruction sheets but for your own benefit keep them with your write-up of the experiment. This should be a simple account of what you did in the laboratory, written up at the time or soon after the class. Your performance in practicals, which includes the Ecology and Evolution fieldcourse in Trinity Term, will form part of the overall assessment for your Preliminary Examination at the end of the year (see below). You will find full details of all first year practicals and their timetabling on WebLearn.

In many cases, the practical is accompanied by a practical booklet giving you the key information you require to undertake the practical work and providing you with a series of tasks to complete during the practical. This is in part to encourage you to develop a concise analytical style and to record your data and observations efficiently. In other cases, the practical work should be written up in loose-leaf notebooks as soon as possible after the end of the practical.

Drawing and labelling may not be everyone’s favourite activity, but it remains an essential part of the observation and learning processes in biology. It is not the same as merely
taking a photograph and, where appropriate, we do expect you to produce clear, accurate and detailed annotated drawings in practicals.

You must obey the rules that apply to safety in the teaching labs (see Section H.7 of this Handbook).

You are expected to attend all practicals: it is important to make sure that you always complete the practical registration process. Note that non-attendance at practicals MUST BE certified by a medical certificate or a note from your Senior Tutor (see Section C.2 (c)(i)).

You must hand in practical write-ups for all practicals that you attend − you will be given instructions for the hand-in procedures by each practical organiser. You must submit a satisfactory practical record (see Section D.1) to have been deemed to have ‘passed’ the practicals aspect of the course.

You must make sure that you don’t lose your practical portfolio − it may need to be submitted to the Examiners in Trinity Term of year 1.

(iii) Feedback on practicals

Both formative and summative feedback is provided on all of your practical work. For summative feedback, practical write-ups are graded by the practical demonstrators as follows: non-satisfactory (NS), satisfactory (S) or excellent (E). A grade of NS indicates that the student failed to complete to a satisfactory level a substantial part of the work that most of the cohort completed successfully and therefore that the work was unsatisfactory. A grade of NS is not intended to be used to penalise students who failed to understand the material but only those who failed to engage in a meaningful way with the practical itself. However, students who are having difficulty understanding practical work are strongly urged to talk to the demonstrators in the practical classes for advice and help. We would expect that all diligent students, who attend all practicals and complete and hand in all of the required practical write-ups, will pass the practical component of the first year course.

Grades of S (often split into $S_-$, $S_0$ and $S_+$) and E are intended to give formative feedback by providing additional quality information – these grades should be read in conjunction with any constructive comments that the markers may provide on the write-ups.

(c) Computer Classes

(i) What is a computer class?

Most of the Quantitative Methods teaching takes the form of computer classes where lecture material (new information) is combined with interactive use of the new material (worked examples). Demonstrators are available during the class to help you understand the material. The practical exercises during the class are designed to reinforce the more theoretical lecture material in the class. Hilary Term classes are normally 120 minutes long while Trinity Term classes are normally 60 minutes long.
(ii) What you need to do
You should carry out the set class-work competently, understanding what you are doing or have done (ask the demonstrators if you don’t), and keeping a clear record for your future reference. You should be prepared to take notes during the lecture component of each session.

(iii) Feedback
The interactive structure of the computer classes ensure that the new material is reinforced in the same session. This provides useful feedback as success in completing the practical examples should correlate with an understanding of the new statistical material. Many problem sets are also available on the Internet for self-study.

You can expect your class-work to be assessed by the Demonstrators to provide formative feedback. However, these marks are only for your benefit and do not form part of the formal examination process.

(d) Tutorials

(i) What is a Tutorial?
Tutorials are a distinctive feature of undergraduate education at Oxford and make a significant contribution to maintaining Oxford’s standard of excellence in teaching. In your first year, your College Tutor is responsible for organising much of your tutorial teaching and for giving you guidance about your choice of themes and project work, whilst the University is responsible for the organisation of lectures, practicals, some classes and your project and assignment work.

Typically, you will have a planning meeting with your College Tutor in 0th Week of each term to confirm teaching arrangements for that term and in 8th Week to review the term gone by, and to discuss your programme for the following term. The published subject norm for Biology is an average of one tutorial per week (i.e. 8 tutorials per term).

In the first year most of your tutorials will be conducted by academics associated with your College: they may be a lecturer, reader, professor or an active researcher at post-graduate or post-doctoral level. Although this might seem a little intimidating at first, you will quickly realise that the tutorial is not a confrontational situation and the Tutor is equally keen that the tutorial should be a worthwhile and productive experience all round. It is important to realise that during a tutorial everyone should be participating equally - it is not simply a vehicle for the tutor to provide the right answers to a list of questions or to impart factual information that could be better obtained through background reading, lectures, etc. In subsequent years, tutorial teaching will normally be undertaken by specialist experts selected by your Tutor or organised by Theme/Option Organisers to complement the lecture courses.

If you would like to receive tuition from a particular person in Oxford, speak with your College Tutor in the first instance. You can also discuss with your College Tutor whether you would like additional tutorials in any subject. This might relate to provision of statistics classes, bridging gaps from A-level syllabuses, or simply arising from a curiosity not covered elsewhere in the course. However, College Tutors do not want to overload their
students so they may encourage you to prioritise particular tutorial subjects at this stage in the course.

You should realize that tutorials can be as rewarding for the tutor as they can be for you. If you have immersed yourself in the material and come prepared with questions to challenge the tutor, you will be surprised how rapidly your knowledge and understanding of the subject will develop. Your tutor will give you feedback on your prepared essay during the tutorial but will be just as concerned to discuss your ideas, to answer your questions and to talk about the broader implications of the subject. The tutorial should not be a mini-lecture. Most of your tutorials will be with one, two or more students in your year. Though you will have to produce separate, independent written work, interactions with each other during the tutorial can be very beneficial. This continuous refinement of your own analytical and critical skills should serve you well in any discipline after leaving Oxford, even if it is not Biology.

(ii) What you need to do

You will be expected to undertake a significant amount of work in preparation for each tutorial. Typically, this will be reading for an essay that is handed in before the tutorial so that the tutor can read and comment on it prior to your discussion. The tutorial essay is intended to encourage you to explore a particular aspect of the subject in depth and to give you an opportunity to put forward your own ideas and present a critical analysis of a particular problem or proposition. A good tutorial essay is rarely produced unless you allow yourself sufficient time to think. Work on a tutorial essay involves library searches, reading, thinking and writing. The first two of these will take you about three days. Giving yourself a few extra days to construct your argument will result in a much stronger essay. Read attentively and thoughtfully, skipping bits that obviously do not bear on your topic, and avoid the tedium of summarising paragraph after paragraph of someone else’s ideas. As your reading progresses, develop a structure for your essay and, if your treatment appears unbalanced, be prepared to follow up additional avenues of investigation.

Essays should be used to develop an argument, not as places to store information. One simple aim might be to try to develop an original hypothesis within every essay that you write or to suggest an improvement to an often-cited paper. Even key papers and textbooks can be wrong or rely on evidence that can be interpreted in more than one way. We are interested in your opinions and views, not simply a regurgitation of a standard text.

There are arguments for and against using a word-processor for writing essays. On the one hand it will make your essays and notes easier to read and is undoubtedly a useful skill to acquire. On the other hand there is a danger that you will get out of practice of physically dragging a pen across the page, especially under a time-constraint. However, you will be able to practice and refine your exam skills by means of mock exams (‘Collections’) set by your College Tutor at the beginning of term. You are not allowed to use word-processors in your exams, unless there are exceptional medical reasons.

Make sure that you hand your essay in by the deadline determined by your tutor. Turning up for a tutorial with the essay in your hand will provoke various reactions from your tutor,
none of which are likely to be very rewarding! Similarly, do not email your essay to your tutor unless invited to do so; it’s not fair to expect them to do your printing for you.

Keep your essays, and the notes you used to prepare them, filed away carefully, as you may be referring back to them for revision. If you are working on computer, remember to keep back-up copies. It is advisable to hand-write at least some of your essays to encourage better mental discipline and to practice writing for the exams at the end of the year.

Plagiarism is considered to be a serious offence at Oxford (see Section D.4) – avoid it at all costs. Read your essay through and edit it carefully and critically before finally handing it in to your tutor. Use graphics such as graphs, tables and maps, where appropriate but make sure that you cite fully each source. It will help your understanding and interpretation if you redraw such items rather than simply cutting and pasting from other sources.

(iii) Feedback

You will normally find that your essay work has not been explicitly graded. **Do not be surprised.** Tutors will often give effective and helpful comments at the end of the essay but the essence of the discussion in the tutorial is to give you verbal feedback about your work and to develop your understanding further. You are encouraged to move away from a marks-oriented approach to your studies, where counting facts is important, to an environment in which discussion of ideas and concepts prevail. A key feature of this approach is to encourage you to explore and develop your own ideas and risk being wrong without any fear of penalty to your final degree class.

Your tutorial work is not formally assessed as part of your First or Second Public Examination but a written report on your progress in each tutorial will be sent back to your College. You will have the opportunity to discuss progress with your College Tutor informally at the end of each term, or formally in the presence of (usually) the Head of House or Senior Tutor at intervals during your course. You should be clear at the outset that, although your tutorial work will be of great assistance to you when you come to prepare for Prelims or Finals, the purpose of the tutorial is not explicitly to prepare you for exams. Rather, it is an integral part of your whole learning experience and particularly important for your academic development.
C.2 Organisation of teaching

We make no apologies for lectures or practicals starting at 9.00am. If you have had insufficient sleep you will work more slowly, absorb little and understand less. However, it can be possible to fit in plenty of activities such as sport, music, drama or planning an expedition alongside your studies. The eight weeks of Full Term are quite intensive, so it is important that you plan your time and commitments carefully and don’t overdo it. Time management is a learnt skill so talk to your College Tutor if you are having problems in this area.

You MUST NOT record lectures, and indeed it is a disciplinary offence to do so, without prior permission. While the University has introduced a Lecture Replay Service, the Biology Faculty have decided not to adopt it as a course-wide policy. For further information please see the University Policy on the recording of lectures and other formal teaching sessions by students. Students with specific learning difficulties or visual impairments may be given permission to record lectures (see Section G.3) and will not need to seek permission to record lectures from individual academics. Further information is available from the University Disability Advisory Service.

(a) Timetable and teaching loads

All official lectures, practicals and fieldcourses are detailed in the timetable which is published every term. For the most up to date information consult the electronic timetable on the Biological Sciences WebLearn site. Please consult this frequently, as we may have to change things occasionally. Email circulars will be used to notify you of timetable changes.

You can download or subscribe to a detailed ‘Electronic Timetable’ from the First Year WebLearn menu. Visit the Biological Sciences WebLearn site, select First Year from the main menu and then Electronic Timetable. From there follow the given instructions.

We cannot give you a precise idea of “norms” in teaching load (i.e. what you can expect per week), since numbers of lectures and practicals vary through the year. However, in the first two terms you might expect 2, sometimes 3, lectures every day and 2 or 3 practicals most weeks (no practicals on Wednesdays). There are fewer practicals in the third term but 2 or 3 lectures per day is typical and there is a week-long fieldcourse in the second half of term. You might expect to meet your College Tutor at the beginning and end of each term and an average of one tutorial per week is normal for biologists.

PLEASE NOTE THAT WE HAVE TO RESERVE THE RIGHT TO CHANGE, ALTER, ADD OR REMOVE EVENTS AS THE TERMS PROGRESS AND CIRCUMSTANCES CHANGE.
(b) Organisation of lectures

(i) Time keeping

It is extremely important, not just for educational efficiency but also for courtesy, to make sure that you are never late for lectures (or any other teaching activities). It is extremely disconcerting for a lecturer or tutor to be interrupted by students arriving late for an event and it is simply not acceptable to turn up even a few minutes after the allotted start time. So please aim to be in your seat in the lecture theatre at the allotted start time so that you do not delay the start of the session. However, we do appreciate that on rare occasions arriving a few minutes late may be unavoidable and this can be the case for teaching staff too.

(ii) Lecturing facilities

In the first year the majority of lectures will be held in the Museum of Natural History Lecture Theatre, which is on the first floor of the Museum. The Lecture Theatre has up to date facilities, including a hearing induction loop, and is equipped with microphones, although not all lecturers use them – if you have trouble hearing a lecturer then consider asking them to use the microphone system. If the theatre is too dark or too bright please ask the lecturer to adjust the lighting. If you find the lecture theatre too warm or too cold please contact the Teaching Administration Team (note that lecturers cannot adjust the ambient temperature levels).

(c) Organisation of practicals

Please aim to be in your seat in the teaching lab at the allotted start time, with your lab coat on so that you are ready to begin the practical work. Please make sure that your belongings are stored in the appropriate place.

(i) Unavoidable absence from practicals

Records of attendance and marks are kept and recorded by the Practicals Coordinator: Please ensure that you always sign the practical attendance sheets provided in the lab and in the computer rooms. As non-attendance at a practical will also result in a failure to submit a write-up, it is essential that any practicals that are missed through medical or other unavoidable circumstances are formally recorded. Medical certificates, normally from your College Doctor/Nurse, are required for absence for medical reasons and a note from the Senior Tutor of your College should be provided for all other absences – these must be given to Practicals Coordinator (Asya Naish in the Department of Plant Sciences). Medical information will be treated in the strictest confidence. Please note that permission for absence on non-medical grounds will only be given in exceptional circumstances such as a family bereavement or serious illness of a family member. Further details are given in the Biological Sciences Examination Conventions available on WebLearn (see Section D.3).
(ii) Practical groups

Some practicals have to be given more than once because of space constraints, therefore all students are assigned to practical groups: these groups are organized centrally by the Teaching Administration. You can view your practical group via the first year biology menu on WebLearn. You must not switch groups without the permission of the Practicals Coordinator. If for some reason you need to change practical groups you must find another student who is willing to swap groups with you permanently and see the Practicals Coordinator to confirm whether or not the swap can go ahead. For administrative queries about practical groups or submission of write-ups, please contact asya.naish@plants.ox.ac.uk

(iii) Storage of your practical write-ups

All students have their own individual suspension file in a filing cabinet in the Modular Biology Teaching Laboratory from Hilary Term. To locate your own file first find your college drawer in the filing cabinet (each drawer is clearly labelled). Inside each drawer the files are ordered alphabetically by college and then by first name. All assessed work will be returned to your suspension file in the Teaching Lab.

(iv) Ethical considerations in practicals and fieldcourses

Please note that in order to understand how living organisms function, evolve and adapt, it is sometimes necessary to explore their inner structures and physiology. In addition, biology in the field involves the collection and examination of plant, animal and microbe samples. The undergraduate course of Biological Sciences at Oxford therefore includes some examination of animals via dissection, and the collection and examination of invertebrates on fieldcourses and in practicals. Dissection takes places in eight laboratory practicals in Michaelmas Term – five involving invertebrates and three involving vertebrates.

The trapping and examination of vertebrates will occur during the Ecology and Evolution Fieldcourse but the animals involved are subsequently released to their natural habitat. All trapping and handling techniques involving protected animals (that is, vertebrates and cephalopods) in fieldcourses, and all sourcing of protected animals used in dissection practicals, will have been subject to ethical review by the Department of Zoology’s Animal Welfare and Ethics Review Board under the University of Oxford’s Policy on the Use of Animals in Scientific Research, as described in the University’s ‘Code of Practice for Biologists using Animals’ (periodically updated). In the first year, participation in these types of study is compulsory for everyone, though it is possible to avoid some of this type of work in the second year by attending practicals that do not include it.

(d) Organisation of computer classes

All computer classes are held in the Computing Suite, which holds around 60 terminals connected to a central server. It is located in the Department of Plant Sciences on the first floor of the South Building. Space constraints mean that computer classes are given in groups. These groups are the same as those used for practicals (see Section C.2 (c)(ii)).
(e) Organisation of tutorials

In the first year all of your tutorials will be organised by your College. However, in the second and third years you have the opportunity to become much more involved in the selection and organisation of your tutorials.

(f) Organisation of the Ecology and Evolution Fieldcourse (Orielton)

The practical component of the Ecology and Evolution module is an 8-day residential fieldcourse at Orielton Field Studies Centre in Pembrokeshire, West Wales, which takes place in the middle of Trinity (summer) Term. Orielton is an elegant Georgian mansion set in 48 hectares of its own grounds situated on the Castlemartin peninsula, three miles south of Pembroke. It is immediately adjacent to the Pembrokeshire Coast National Park and close to the National Nature Reserves of Skomer and Stackpole. The local countryside and shores afford a good variety of excellent terrestrial, freshwater and marine study sites. For more information see their website.

Please note that the fieldcourse is likely to clash with rowing competitions in Trinity Term. We apologise for this, but cannot exempt anyone – academic courses must come first. The Orielton fieldcourse will take place from Friday of Trinity Term Week 4 to Friday of Trinity Term Week 5 inclusive (Friday 18th May to Friday 25th May 2018 inclusive).

N.B. In preparation for the fieldcourse, you will be asked to complete medical and dietary related paperwork in order to insure that all necessary arrangements for your stay can be put in place. It is compulsory that all students complete and return the pre-course paperwork by the given deadline. Please do try to declare any information the Fieldcourse Organiser needs to be aware of in advance of the course. While at Orielton any case of illness, medical incidents or accidents should be reported either to the on duty Orielton staff or to a member of the Oxford teaching staff.

Health and safety rules that apply to fieldwork are set out in Section H.7 of this handbook.

C.3 Expectations of study

Students are responsible for their own academic progress. In addition to your timetabled lectures, practicals and classes you should expect to carry out private study during term time and the vacation. Everyone learns at a different rate, so the number of hours study will vary from person to person but in UK Higher Education, the expectation is that each year a full-time student will spend 1200 hours learning. This for most Universities, with 10 week terms, equates to a 40 hour week – for Oxford the assumption is that the additional time is made up in the vacations but as a result you should expect to undertake around 750 hours of private study across your first year. If you are considering taking on employment during your studies please refer to the following guidance on paid work on the Oxford Students website.³

³ www.ox.ac.uk/students/life/experience
D. ASSESSMENT AND EXAMINATIONS

You will be formally examined at the end of your first year in the Preliminary Examination, normally known as ‘Prelims’ (also known as the First Public Examination or FPE). Formal specifications of the examinations are given in the Examination Regulations. Extensive further details of examination regulations and procedures are given in the Biological Sciences Examination Conventions available from WebLearn (see Section D.3). In addition the Director of Undergraduate Teaching will give a talk on Examination procedures in Week 5 of Michaelmas Term (refer to timetable).

D.1 Assessment structure

The written examinations will consist of three papers, each of 3 hours duration: Organisms (Paper 1), Cells and Genes (Paper 2), and Ecology and Evolution (Paper 3). The three written papers contribute equally to the overall mark. Before you can proceed to the Final Honours School, you must pass each of the three written papers and produce a satisfactory record of practical work for the year.

All three papers will last three hours, and will be in two parts:

Section A: 10 out of 12 short-answer questions, worth, in total, one-third of the marks
Section B: 3 out of 10 essay-type questions, worth, in total, two-thirds of the marks

The three examinations are designed to test both the breadth (Section A) and the depth (Section B) of your biological knowledge. Short answer questions in Section A should test factual knowledge of a) key words and terminology; b) major concepts, mechanisms and principles; and c) important examples. You may also be required to sketch diagrams, particularly in Section A. Long answer questions in Section B require you to write extended essays using the skills developed during your tutorial work.

Although you will not be examined on Quantitative Methods (QM) until your second year, the Examiners will expect your answers in all three written papers to reflect a good working knowledge of the practical components of the course, including both the first year Orielton Fieldcourse and QM.

You should aim to attend all practicals and you are required to submit a portfolio of write-ups for these practicals. Failure to attend practicals and/or the Orielton Field course in South Wales, except in authorised circumstances, may render your practical records as unsatisfactory.

There are two routes for achieving a pass for your practicals portfolio.

1. The Examiners’ practice is to accept a set of write-up grades of satisfactory or better, provided that they represent at least 90% of the total scheduled practical classes. Any classes for which non-attendance has been authorised may be excluded from the total for this calculation. Note that write-ups can be submitted only for practicals that were attended.

2. Candidates whose practical records comprise an unsatisfactory aggregate of attendance and/or write-up grades will be required to submit their portfolio to the Chair of Prelim Examiners, accompanied by a certificate signed by the candidate
indicating that the write-ups are the candidate’s own work. These candidates will be notified by a list posted one week before the day of the first written paper. The Board of Examiners will then determine whether the submitted portfolio is of a satisfactory standard.

Further details can be found in the Examination Regulations (see Section B.3) and Examination Conventions (see Section D.3).

Each year six members of teaching staff are nominated as Examiners for the First Public Examination and they elect a Chair from amongst their number. Two Examiners are appointed to take responsibility for each of the three written papers.

For further information relating to the assessment structure of the Preliminary Examination please refer to the Examination Conventions (see Section D.3).

D.2 Feedback on learning and assessment

In preparation for your written examination papers, your College Tutor may set you one or two 3-hour papers that you sit in College, usually at the beginning of each term, called Collections. These papers usually relate to the work you have done in the previous term and are set in the style of mock examination papers. They are usually marked by your Tutor or another specialist drawn from the departments. These papers provide you with the opportunity to consolidate your understanding of the previous term’s work and to practise writing under exam-style conditions. Collections are entirely College-based and are intended to allow you to assess your progress using the type of question papers you will see in the University examinations: they are not taken into consideration in your Prelims grades. The writing practice gained is also important because if your handwriting is not considered legible you may have to pay to have your Prelims or Finals scripts typed. You should certainly try to improve the legibility of your writing if it receives unfavourable comment from your Tutors.

Copies of past examination papers are available through Oxford Examination Papers Online (OXAM). Because the course content changes over time, it is likely that the most recent three years worth of papers will be the most useful. You may notice that past examination papers for the older Honour Moderations Examination are also available via OXAM but they are far less useful as they follow a different examination structure for the first year course to the Preliminary Examination.

OXAM is an independently run service and any questions regarding exam papers should be addressed directly to the contact found on their homepage. Exemplar answers to past examination questions produced by students are made available on WebLearn, in the Prelims Examination area.

Your tutorial work will be of great assistance to you when you come to prepare for Prelims, however, the purpose of the tutorial is not explicitly to prepare you for exams and it is not formally assessed as part of your First Public Examination.
D.3 Examination Conventions

Examination conventions are the formal record of the specific assessment standards for the course or courses to which they apply. They set out how your examined work will be marked and how the resulting marks will be used to arrive at a final result and classification of your award. They include information on: marking scales, marking and classification criteria, scaling of marks, progression, resits, penalties for late submission, and penalties for over-length work.

The definitive version of the Examination Conventions applicable to your exams will be made available by the start of Hilary Term of year 1 on WebLearn. All students will be notified of their availability by the Biology Teaching Administration Team via email. The full document is available via a link on the home page of the Biological Sciences WebLearn site: here we give you a few key details.
D.4 Good academic practice and avoiding plagiarism

The University definition of plagiarism:

_plagiarism is presenting someone else’s work or ideas as your own, with or without their consent, by incorporating it into your work without full acknowledgement. All published and unpublished material, whether in manuscript, printed or electronic form, is covered under this definition._

_Plagiarism may be intentional or reckless, or unintentional. Under the regulations for examinations, intentional or reckless plagiarism is a disciplinary offence._

Please be aware that any case of plagiarism is taken very seriously by both your Examiners and the Proctors, and severe penalties may be imposed on any student who attempts to deliberately plagiarize the work of others whilst undertaking any aspect of the Biology degree course. Please do exercise due care and judgement, and follow good practice as indicated within course documentation material, including the Examination Conventions on WebLearn. As a rule of thumb, ensure that in any written work, passages quoted or closely paraphrased from another person’s work are identified as quotations or paraphrases and the source of this material and other sources used are clearly acknowledged in the text and the bibliography. You should be aware that Turnitin software is available for detecting plagiarism – you might want to discuss this with your College Tutor.

Examples of plagiarism might include:

1. Misusing electronic literature by cutting and pasting sentences, paragraphs, etc. without including quotes and attribution.
2. Copying, in whole or part, previous student essays.
3. Copying another student’s practical work (except where the sharing of data is explicitly allowed).

Note that you will have to certify practical write-ups as your own work if you are required to submit your practical portfolio to the Examiners.

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4 [www.ox.ac.uk/students/academic/guidance/skills/plagiarism](http://www.ox.ac.uk/students/academic/guidance/skills/plagiarism)
D.5 Procedures for assessment of written papers

(a) Entering for University examinations

It is important to note that you MUST register for your examination papers in advance. Please refer to the Oxford Students website for further information regarding examination entry and alternative examination arrangements.\(^5\)

(b) Examination Dates

The ‘Prelims’ Examination will be held in 9th week of Trinity Term 2017 but the actual dates and times will not be known until after the Easter vacation, at which point you will be notified of the examination schedule by the Teaching Administration Team. Further information about examination timetabling is available on the Oxford Students website.\(^6\)

(c) Sitting your examinations

Information on (a) the standards of conduct expected in examinations and (b) what to do if you would like examiners to be aware of any factors that may have affected your performance before or during an examination (such as illness, accident or bereavement) are available on the Oxford Students website.\(^7\)

The Prelims examinations are usually held in Ewert House in Summertown, however, these arrangements may differ for candidates with special needs or for those taking a re-sit examination in September. Note that all candidates are required to wear sub-fusc in examinations.

All scripts for each paper are ‘blind’ double-marked by the two Examiners responsible. The boundary for a pass is set at 40%, and you must pass each paper separately. The overall mark for the Preliminary Examination is an average of the marks for the three papers.

If you fail one paper you must re-sit that paper; if you fail two or three papers you must re-sit all three. If you have to withdraw from the Preliminary Examination, your College may allow you to re-sit them. The re-sit exam is typically scheduled in early September. Provided that you pass the re-sit exam, you may continue to the second and third years of the course.

Passing a First Public Examination is a prerequisite for proceeding to the Final Honour School. However, your marks in Prelims do not count in any way towards your Finals; the Second Public Examination is an entirely separate set of examinations.

\(^5\) http://www.ox.ac.uk/students/academic/exams
\(^6\) http://www.ox.ac.uk/students/academic/exams/timetables
\(^7\) http://www.ox.ac.uk/students/academic/exams/guidance
(d) Use of calculators in written papers

For some examination papers, calculators will be helpful and we highly recommend that you bring one to each examination. The rules relating to permissible calculators are in the Examination Conventions on WebLearn. Whichever calculator you decide to use you should make sure that you have learnt to use it before entering the examination. You should also carry either a spare battery or a spare calculator (or both).

(e) Marking scheme for written papers

The marking schemes provide a written description of the qualities expected for various grades of answer in terms of content, structure, and understanding displayed. The written descriptors are then converted into numerical scores that the answers represent. You should familiarise yourself with these schemes as they form the only basis for the assessment of your written examinations.

Marking schemes for each exam paper are updated every year – the marking schemes for your examinations will be sent to you by the Chair of Examiners for the Preliminary Examination by the end of Hilary Term. Previous schemes are available for reference via Preliminary Examination information on the First Year area of WebLearn.

(f) Standard classification scale

The University requires all Examiners in the Preliminary Examination and Second Public Examinations to express agreed final marks for individual papers (including those for formally assessed coursework) in the following form on the basis of the following class boundaries.

The Preliminary Examination results scheme is as follows:

- Distinction: 70 – 100
- Pass: 40 – 69
- Fail: 39 – 0

N.B. The precise class boundaries may be varied at the discretion of the Examiners.

D.6 Procedures for assessment of practical work

You must make sure that you don’t lose your practical portfolio – it may need to be submitted to the Examiners in Trinity Term of year 1.

You are also advised to carefully read the sections from the Examination Conventions for Prelims concerning practical coursework, particularly:

- Section 5. Examination of practical coursework;
- Section 6. Factors affecting attendance and performance of examined work;
- Section 7. Penalties that may be applied;
- Section 8. Disciplinary Regulations regarding plagiarism.
(a) Final assessment of practical work by the Examiners

The final assessment of your work is undertaken at the end of Trinity Term by the Board of Examiners. However, it is the Examiners’ practice to regard those practical portfolios whose components have all been graded satisfactory or better by the Practical Demonstrators to have automatically passed the practical requirement of the Preliminary Examination.

If you have an unsatisfactory aggregate of attendance and/or write-ups, then the Examiners will formally re-assess your work to decide your grade (note that only duly appointed Examiners have the power to fail a candidate on their practical work). Such candidates will be required to submit their entire practical portfolio to the Chair of Examiners for re-assessment and will be notified of this via a list posted one week before the day of the first written paper. If after this formal re-examination the work is still considered to be unsatisfactory the candidate will normally be deemed to have failed the First Public Examination and must leave Oxford.

(b) Assessment of practical work by the Practical Demonstrators

Your work is initially assessed by the Practical Demonstrators, and graded as excellent (E), satisfactory (S) or not satisfactory (NS). Organisers of practicals have differing approaches to the timing of marking work: some may request this is handed in the same day; others at the end of the week; while some will require it sometime after the end of their practical course. Whenever it is required, you should be prepared to submit your completed write-ups for the individual practical course, handing them in to the designated hand-in box. If you fail to hand in work when requested, then a NS mark will be recorded unless you have previously supplied a Medical Certificate or Note from your College Senior Tutor (as detailed in section C.2 (c)(i)).

(c) Auditing of your practical work by the Teaching Administration

Numerous people are involved in the assessment process and some errors in transferring the many hundreds of marks are probably inevitable. To counter this, and to ensure that all your practical work has been marked, we undertake a second, administrative check of your marks. We therefore require you to submit all the practical work undertaken in Michaelmas and Hilary Term at the start of Trinity Term. As soon as the administrative checks are complete, we will return your practical write-ups to you in plenty of time for revision as many of the things you learn in practicals will be relevant to the Preliminary Examination.

Submission will take place in the Modular Biology Teaching Laboratory on Mansfield Road and your work must be placed in the hand-in box provided. The deadline for submission is 8.30am-4.00pm on Monday and Tuesday of 1st Week in Trinity Term. We will write to you to remind you of this nearer the time.
D.7 Exam results and Examiners’ Report

You are able to access your results information electronically via Student Self Service, details of which will be provided by your College at the appropriate time. The Academic and Assessment Results page within Student Self Service details all of your assessment results and the result for the year (if applicable). For more information regarding examinations, including examination entry and where to find examination dates, and to gain access to Student Self Service please visit the Student Gateway.

Your marks and overall ranking are sent to your College. Your Tutor will discuss your performance with you, usually at the start of MT2. The Examiners produce a report on the examination that is discussed both at Steering Committee and at Divisional level. The report is posted on WebLearn (normally during the following Hilary Term). The report contains useful information about what the Examiners were looking for in answer to particular questions, summary statistics and indications of any errors made by substantial proportions of the cohort.

Details of membership of the current Examination Board are available in the Examination Conventions for the Preliminary Examination (available on WebLearn). Note that neither you nor your College Tutor is officially allowed to communicate directly with the Chairman of the Preliminary Examination or any members of the Examination Board.

D.8 Prelim Prize for Scholarship in Biological Sciences

Each year the Biological Sciences Prelims Examiners will award three prizes, the Prelim Prize for Scholarship in Biological Sciences, to the candidates offering the best papers in the Preliminary Examination. Awards are normally based on achievement of the highest ranked marks in each paper.
E. SKILLS AND LEARNING DEVELOPMENT

E.1 Academic progress
The Departments provide feedback on your progress via practical assessments and examinations but are not responsible for monitoring your progress. Your College will monitor your performance in tutorials, via tutorial reports submitted by each person who has tutored you (through the OxCORT reporting system), and may monitor your overall academic progress in College Collections. However, you are largely responsible for monitoring your own academic progress as an independent learner.

If you are unclear about any aspect of your formal teaching it is perfectly acceptable to approach the lecturer/demonstrator with your question after the lecture/during the practical.

E.2 Learning development and skills
(a) Intended learning outcomes of the degree course
By the end of the degree course you should have achieved the following:

(i) Knowledge and understanding
- acquired an understanding of the conceptual and practical aspects of modern biology and its interdisciplinary nature;
- appreciated the diversity of life on earth, the processes by which it has evolved and currently functions, and the risks for its future survival.

(ii) Intellectual skills
- developed a facility for independent learning from a range of sources, including critical analysis of the original literature, and a capacity for independent thought;
- developed ability to recognise, categorise and classify living and fossil material from all types of organisms using modern, scientifically rigorous, techniques;
- developed conceptual and practical skills to define, analyse and solve problems;
- had experience of critically researching and analysing research literature;
- appreciated and be practised in the numerical skills appropriate to modern biology;
- understood the principles of experimental design and safe use of materials and equipment in a laboratory or field context.

(iii) Practical skills
- gained hands-on experience in a range of practical skills and methodologies, from cellular and molecular techniques to behavioural observations and ecological assessment and monitoring systems in aquatic and terrestrial habitats;
- acquired skills in data handling, experimental design and data analysis;
- acquired an appreciation of the diversity of life and how it may be managed, curated or conserved;
- completed an independent project of original research, involving a literature review and experimental design, culminating in a dissertation;
- received training and understood the importance of good laboratory practice.
(iv) Numeracy, communication and Information Technology skills
- developed skills in logical thinking and problem-solving;
- learned to précis large bodies of information, and present reasoned arguments both verbally and in writing, targeted to a specific audience;
- gained experience in designing and undertaking a research project;
- gained an understanding and working knowledge of coding techniques in R;
- acquired computer skills enabling you to present work to a high standard;
- acquired skills in general & technical communication, through verbal and written reports, including PowerPoint presentations.

(v) Interpersonal and teamwork skills
- experienced a range of different learning environments that include team presentations;
- had the opportunity to debate current topical issues;
- had the opportunity to participate in a wide range of extra-curricular activities to stimulate personal development.

(vi) Self-management and professional development skills
- gained extensive experience in independent study;
- developed time management skills in both study and laboratory contexts;
- developed an effective approach to study.

E.3 Opportunities for skills training and development
A wide range of information and training materials are available to help you develop your academic skills – including time management, research and library skills, referencing, revision skills and academic writing - through the Oxford Students website.
In addition to this, on their website the Oxford University Student Union (OUSU) provide a selection of pages dedicated to developing your study skills including study skills tips and exams revision tips. And if English is not your first language and you wish to improve your academic English skills you might find it helpful to take a look at resources available through the University Language Centre.
(a) Seminar series

Most departments in the University, including Plant Sciences and Zoology, have a regular series of seminars that are advertised on the University Lecture Lists website. It is also possible to link directly to the Plant Sciences and Zoology seminar notices via WebLearn. You are entitled (and, indeed, strongly recommended) to attend any of these lectures and by your 3rd year you will be surprised at how much you can follow and how stimulating they can be. Some of the leading researchers in the world will be presenting their most recent results and the cumulative experience of their career. These can be some of the most stimulating and challenging lectures you will experience in Oxford and you are strongly urged to make the most of the opportunity. In addition, you will regularly see posters for lunchtime seminars on various notice boards, often associated with particular research groups. You are allowed to attend any of these meetings and some may, for example, be particularly relevant for your project work.

(b) Oxford University Careers Service

The Careers Service provide a range of career-focused services, programmes and activities. They offer a free and impartial service, relevant careers information and services, and they work with alumni for life.

The Careers Service regularly advertise events and opportunities that might be of particular interest to biologists. From time to time they also offer individual career appointments in the departments for second and third year students, however any student might make an appointment directly with the Careers Service via their website. In addition to this there is normally a talk aimed at first year biologists in Hilary Term that any biology student can attend. In each case these are advertised to students via the Biological Sciences Weekly Circular.

Visit the Careers Service website and log into CareerConnect to book individual careers appointments, to find information regarding current employment and internship opportunities, to find out about upcoming events and other opportunities that might be of interest.

The Careers Service is located at 56 Banbury Road and is open between 9am-5pm Monday-Friday. General enquiries can be made via reception@careers.ox.ac.uk or 01865 274646.
F. STUDENT REPRESENTATION, EVALUATION AND FEEDBACK

F.1 Department representation and degree course governance

The course is organised through a series of Committees, although day to day running of the course is overseen by the Teaching Administration Team. The primary inter-departmental Committee is the Biological Sciences Steering Committee: the Joint Consultative Committee, the Exam Sub-Committee and the Teachers’ Forum all feed into this Committee. Minutes of these meetings are available on WebLearn. At a higher level, Biological Sciences Steering Committee is responsible to the Academic Committee of Mathematical, Physical and Life Sciences (MPLS) Division and ultimately to the Education Policy Committee of the University.

Students have an opportunity to make their views known at a number of different levels, either directly or through their student representatives. Your views are welcome and can be raised via your student representatives, your feedback returns, your tutor, Theme Organisers or via the Teaching Administration.

(a) Biological Sciences Steering Committee

The Biological Sciences Steering Committee is responsible for all matters concerning teaching and examining: formal approval of the Biological Sciences curriculum including all options/themes/practicals; formal approval of changes to syllabus, course design and delivery; monitoring of the results of in-house termly and annual student feedback and pursuing necessary responses; consideration of teaching matters referred for departmental consideration by the supervisory board or other University committees. The list of the Committee responsibilities is provided in the Committee Standing Orders on WebLearn. Membership includes key staff members responsible for the organisation and development of the degree course. The Committee meets twice per term and it reports to the MPLS Divisional Board via the Chair.

The Committee reports to the MPLS Divisional Board via the Chair. It consults the faculty and college tutors on all substantial matters of policy, either at formal meetings or by electronic means. Minutes of its meetings are published to all members of the University via WebLearn.

The two second-year Joint Consultative Committee representatives are invited to attend Biological Sciences Steering Committee meetings to provide a student perspective.

(b) Biological Sciences Joint Consultative Committee

The Biological Sciences Joint Consultative Committee (JCC) considers changes to the syllabus, general aspects of examinations (including Examiners’ reports), teaching arrangements, library facilities and similar matters. Much of the business of the Committee relates to issues raised by students. Student representatives provide a regular channel of communication between the Biological Sciences Steering Committee and the Biological Sciences undergraduates. Membership includes two undergraduate representatives from each cohort of students and five staff members who are involved in the organisation and development of the degree. The JCC meets once per term, usually in 4th Week.

Elections to the Committee are held annually in Michaelmas Term. We hope that students will participate fully in both the process of election to the JCC and in channelling through to their
elected representatives any course-related matters that ought to be discussed. A list of JCC representatives and contact email addresses, and minutes of JCC meetings are available on WebLearn.

Student representatives are encouraged to take part in the work of a number of other important committees, including the Biosciences & Environmental Sciences Library Advisory Committee, which advises the Director of the University Library Services on library and electronic resources provision, and the MPLS Division Undergraduate Joint Consultative Forum (UJCF). The Divisional UJCF aims to complement the departmental JCCs by providing a forum for informal student input and feedback on issues of concern to undergraduate students from all departments in the Division. A junior member of the JCC will sit on the Divisional UJCF, which meets once per term.

**c) Biological Sciences Exam Sub-Committee**

The Exam Sub-Committee is responsible for oversight of all matters concerning and arising from the Preliminary Examination in Biological Sciences and the Honour School Examination of Biological Sciences, which includes the nomination of examiners, the consideration of internal and external examiners’ reports, and to provide oversight, guidance and advice to Boards of Examiners.

As a sub-committee of the Biological Sciences Steering Committee, all matters discussed and all recommendations made are reviewed by the Steering Committee. Membership includes members of the Preliminary Examination and Final Honour School Board of Examiners, members of the Teaching Administration and other academic members of the Departments of Plant Sciences and Zoology. The Committee meets once per term, shortly before the beginning of Full Term.

**d) Biological Sciences Teachers’ Forum**

The Teachers Forum provides an opportunity for any member of Biology teaching staff to raise for discussion any aspect of undergraduate teaching and also provides a means of sharing information with teaching staff. It acts as an advisory body to the Biological Sciences Steering Committee. Membership is limited to all lecturers, all college tutors and academic administration, including the head of teaching lab. The Forum meets once per term.

N.B. Steering Committee retains its role as the executive body for the course - the teaching forum provides opinion on issues but does not to take binding decisions.

**F.2 Division and University representation**

The Mathematical, Physical and Life Sciences Division (MPLS Division) is one of four Divisions in the University (the others are Humanities, Medical Sciences and Social Sciences). The MPLS Division consists of 13 departments, including Plant Sciences and Zoology. All undergraduate matters are overseen by Divisional Committees, on which we are fully represented.
The MPLS Division:

- Provides leadership for the natural and physical sciences at Oxford, and acts as an advocate within and outside of the University;
- Supports and advises the 13 departments, and interdisciplinary units that cross the boundaries between departments;
- Manages a range of operational functions that support departmental activity, including finance, personnel, and skills training for graduate students.

Student representatives sitting on the Divisional Board are selected through a process organised by the Oxford University Student Union (OUSU). Details can be found on the OUSU website along with information about student representation at the University level.

Education Policy Committee is the University Committee that oversees all aspects of teaching within the Collegiate University. Major changes to the degree course structure have to be approved by this body.

**F.3 Opportunities to provide evaluation and feedback**

You are expected as part of your degree course to complete anonymous course questionnaires at various stages during your degree, starting at the end of your first term. This is normally done via WebLearn. These questionnaire results are shared with Theme Organisers and are discussed with the lecturers involved in running the course. Each Theme Organiser has to provide a summary to Steering Committee, both of the perceived strengths and weaknesses of their course and of the actions proposed in response to the comments received. Steering Committee will decide which of the proposals to implement or modify, and will disseminate these in the Steering Committee minutes and on WebLearn.

Your comments are taken very seriously and in the past substantial changes to the structure and staffing of the course have resulted from feedback received from undergraduates. The course is kept under continuous review as part of the University’s system of internal quality assurance. We take great pride in trying to provide the best possible degree course for our undergraduates. This process of on-going feedback and review by students and staff is a vitally important part of our work.

**(a) University wide feedback**

Students on full-time and part-time matriculated courses are surveyed once per year on all aspects of their course (learning, living, pastoral support, college) through the Student Barometer. Previous results can be viewed by students, staff and the general public at www.ox.ac.uk/students/life/student-engagement.

Final year undergraduate students are surveyed instead through the National Student Survey. Results from previous NSS can be found at www.unistats.com.

Results of both the Student Barometer and the NSS are monitored by the Biological Sciences Steering Committee and the Joint Consultative Committee. If necessary, action is taken in response to the feedback received.
G. STUDENT LIFE AND SUPPORT

G.1 Who to contact for help

The primary responsibility for pastoral support lies with your College and its support structures. Every college has their own systems of support for students, please refer to your College handbook or website for more information on who to contact and what support is available through your college.

If you don’t feel able to talk to your College Tutor about a particular issue take it to someone else in your College - your Junior Common Room Officers, College Administrator, the Senior Tutor or Dean, the Welfare Officer, or even the Head of College if your difficulty is serious. Many colleges have feedback questionnaires at the end of each term through which you can report problems. Your College will give you personal support - just make sure you talk to someone.

Support is also available more widely in the University from the Oxford Students website, including in relation to mental and physical health and disability. The University also appoints two Proctors as Senior Officers of the University whose duties include:

- being available if students wish to consult them in confidence for help, information, or advice about University matters or any matters outside the sphere of their College Advisors.
- ensuring that regulations designed to maintain the orderly working of the University are implemented (this means that they play a major part in seeing that the University examinations are conducted properly and fairly, and enforcing student discipline);
- investigating any complaints by any members of the University (the Proctors have the power to summon any member of the University to help in their enquiries).

The Proctors can be contacted on Oxford (2)70090 or by email: proctors.office@proctors.ox.ac.uk. The Proctors produce a useful booklet, The University Student Handbook, which gives general information notably on health and welfare, personal safety and security and the University’s academic support services.

At a departmental level, you can talk to a Theme Organiser about problems relating to specific areas of the course; for course-related administrative issues and for issues involving the organisation of examinations contact the Biology Teaching Administration Team. For more serious and/or confidential issues you should contact the Director of Undergraduate Teaching. Contact details are provided in Section A.3 (a).

It is not at all unusual for students to experience a difficulty of one kind or another during their time in Oxford – some aspect of the course may be difficult to understand; a personal relationship might break down; a health problem might arise; domestic or financial difficulties might crop up. Such pressures and difficulties may give rise to feelings of inadequacy, compounded by the impression that everyone else is coping better. There are a number of ways to handle such situations: establish good work habits; from the start of the first term of the first year, work systematically and regularly on your studies, and don’t rely on last-minute panics to get you out of difficulties; take time and effort to cultivate good friendships, and get used to the idea of discussing both academic work and your other interests with your fellow
students; regular meals, physical exercise and sleep will all help; talk to somebody. Try to remind yourself that you are not the only person in this position. Learning to cope and learning how and when to seek advice when you need it is part of the natural preparation for your future.

G.2 What to do if you are ill

If illness seriously affects your academic work, please try not to worry but make sure that your tutors know the facts. If you don’t feel able to confide directly in your College Tutor, try to talk to your Senior Tutor or Dean, or explore one of the other avenues available within your College. Help may involve excusing you from tutorials and practicals, suspending your studies for a period, asking the University to give you dispensation from that term’s residence (you are normally required to be resident in Oxford for nine terms to qualify for a BA) or permitting you to go out of residence for a number of terms.

It is essential that any practicals that are missed though medical reasons are formally recorded. Medical certificates are required for absence for medical reasons – these must be given to the Practicals Coordinator. Medical information will be treated in the strictest confidence.

The Orielton Fieldcourse is a compulsory, examined part of the first year course. Only in the case of extraordinary circumstances may a student miss the fieldcourse, for instance for unavoidable medical reasons. Permission for absence must be sought from the Orielton Fieldcourse Organiser and the Director of Undergraduate Teaching and a medical note must be provided to the Practicals Coordinator.

Information about any special circumstances (e.g. ill-health) that may have affected your performance before or in an examination may be provided to the examiners. You should, as soon as possible and before the papers are marked, complete the form entitled Factors Affecting Performance in Examinations. It is available from the Examination Guidance section of the University Website. You should speak with your college office about completing an application for Factors affecting performance in examinations. Your College will submit the application to Student Administration at Exam Schools for forwarding to the Chair of Prelims Examiners. Applications submitted to Exam Schools later than 10 am Friday Week 10 of Trinity Term are unlikely to be received in time for consideration by the Board of Prelims Examiners.

For further information please refer to the University Student Handbook.
G.3 Disability support

Throughout the course, including planning for examinations, every care is taken to ensure that all students are helped to achieve their full academic potential. If you think that you need additional help with any aspect of your work, due to any level of disability or long-term condition, please do talk to your College in the first instance, or the University Disability Advisory Service directly, as there is plenty of help available to you. This is especially important if examinations need to be sat in College. If, for instance, you have been diagnosed with dyslexia, you may be allowed additional time during examinations provided that your College has made a request to the Proctors, and in good time.

The Disability Advisory Service can be contacted by email at disability@admin.ox.ac.uk or on 01865 (2)80459. They produce guidance for disabled students and applicants as does the Oxford University Students Union (OUSU). Your OUSU Vice-President Welfare & Equal Opportunities can be contacted on 01865 288452, or by email, at vpweo@ousu.ox.ac.uk. Within the course you can contact the Undergraduate Disability Coordinator, Siobhan Organ, or the Disability Lead for Biological Sciences, Prof. Peter Darrah.

Students may also be given permission to record lectures, as a reasonable adjustment on disability-related grounds, provided they agree to comply with the procedures outlined in the ‘Pro-forma for Recording of Lectures’. Further information regarding how to obtain permission to record lectures can be accessed via the University Disability Advisory Service website.

G.4 Complaints and academic appeals within the faculty of Biological Sciences

The University, the Mathematical, Physical and Life Sciences Division and the Biological Sciences faculty all hope that provision made for students at all stages of their course of study will result in no need for complaints (about that provision) or appeals (against the outcomes of any form of assessment).

Where such a need arises, an informal discussion with the person immediately responsible for the issue that you wish to complain about (and who may not be one of the individuals identified in Section G.5) is often the simplest way to achieve a satisfactory resolution.

Many sources of advice are available from colleges, faculties/departments and bodies like the Counselling Service or the OUSU Student Advice Service, which have extensive experience in advising students. You may wish to take advice from one of those sources before pursuing your complaint.

General areas of concern about provision affecting students as a whole should be raised through Joint Consultative Committees or via student representation on the faculty/department’s committees.
G.5 Complaints

If your concern or complaint relates to teaching or other provision made by the faculty, then you should raise it with Director of Undergraduate Teaching (Peter Darrah). Complaints about departmental facilities should be made to the Departmental administrator (Roni McGowan, Department of Plant Sciences or Niamh McEntee, Department of Zoology). If you feel unable to approach one of those individuals, you may contact the Head of Department (George Ratcliffe, Department of Plant Sciences or Ben Sheldon, Department of Zoology). The officer concerned will attempt to resolve your concern/complaint informally.

If you are dissatisfied with the outcome, you may take your concern further by making a formal complaint to the Proctors under the University Student Complaints Procedure.

If your concern or complaint relates to teaching or other provision made by your college, you should raise it either with your tutor or with one of the college officers, Senior Tutor, Tutor for Graduates (as appropriate). Your college will also be able to explain how to take your complaint further if you are dissatisfied with the outcome of its consideration.

G.6 Academic appeals

An academic appeal is an appeal against the decision of an academic body (e.g. boards of examiners, transfer and confirmation decisions etc.), on grounds such as procedural error or evidence of bias. There is no right of appeal against academic judgement.

If you have any concerns about your assessment process or outcome it is advisable to discuss these first informally with your subject or college tutor, Senior Tutor, course director, director of studies, supervisor or college or departmental administrator as appropriate. They will be able to explain the assessment process that was undertaken and may be able to address your concerns. Queries must not be raised directly with the examiners.

If you still have concerns you can make a formal appeal to the Proctors who will consider appeals under the University Academic Appeals Procedure.
G.7 Scientific societies

Many of our students are members of or attend events organised by the following societies:


There are more than 150 officially recognised clubs and societies at the University. For more information, visit the Oxford Students website.

G.8 Organisations offering additional support

There are several organisations within and outside of the University which exist to help you. These organisations include:

- OUSU Student Advice Service, Thomas Hull House – appointments can be made by emailing advice@ousu.org or phoning 01865 (2)88466. Normally open between 10am and 5.30pm on weekdays;
- Nightline, 16 Wellington Square – a listening, information and support service run by students, for students. Open 8pm-8am every night in term-time (0th Week to 9th Week), telephone 01865 (2)70270;
- The University Counselling Service, 11 Wellington Square – appointments can be made by email: reception@counserv.ox.ac.uk or by phone on 01865 (2)70300;
- The Samaritans – phone 01865 722122 or 08457 909090 (24 hour national helpline).

G.9 Policies and regulations

The University has a wide range of policies and regulations that apply to students. These are easily accessible through the A-Z of University regulations, codes of conduct and policies available on the Oxford Students website.
H. FACILITIES

H.1 Social spaces and facilities

Plant Sciences Common Room, which is located on the ground floor of North Building, provides vending machines for snacks and drinks during Departmental opening hours. In addition to this, fresh tea and coffee are normally available for purchase every week day from 10.30-11.15am and 3.30-4.15pm in the Plant Sciences Common Room.

The Museum of Natural History café opens at 10am and is close by to the Museum Lecture Theatre. A range of drinks and snacks are available for purchase.

Please note that the consumption of food and drink in lecture theatres and laboratories (including the computing lab) is strictly forbidden.

H.2 Libraries, museums and other facilities

The Radcliffe Science Library provides services to support the teaching and learning needs of the science community at Oxford University. You will receive an introduction to the Library and its facilities at the beginning of Michaelmas Term of your first year.

Biological Sciences at Oxford has some fantastic connections with other parts of the University in and around Oxford that you might choose to visit:

- **The Museum of Natural History** was founded in 1860 as the centre for scientific study at the University of Oxford. The Museum holds internationally significant zoological specimens and is open to visitors throughout the year (entry is free). You will attend an introductory visit to the Museum at the beginning of Michaelmas Term of your first year. Most of your first and second year lectures will take place in the Museum Lecture Theatre.

- The John Krebs Field Station is located to the North of Oxford just outside the village of Wytham. It was initially established in the 1950s and, along with Wytham Woods, forms part of the Wytham Estate, which was bequeathed to the University in 1943. Over the years new facilities have been built to accommodate the various needs of teaching and research, particularly those associated with ecology, ornithology and environmental change. In Michaelmas Term many of your first year lab practicals will take place at the Field Station Teaching Lab.

- **Wytham Woods** are an area of ancient semi-natural woodland to the west of Oxford. The Woods are owned by the University of Oxford and used for environmental research. Walking permits are available to anyone who wishes to apply. Unless essential work necessitates their closure, the Woods are open every day - gate opening times vary throughout the year.

- The **University Botanic Garden** in central Oxford is the oldest botanic garden in the UK and offers a diverse collection of plants that you can visit throughout the year. You will attend an introductory visit to the Garden at the beginning of Michaelmas Term of your first year and if you wish to visit again just show your University card when you arrive.
• **Harcourt Arboretum** is also open to visitors throughout the year and comprises 130 acres containing the best collection of trees in Oxfordshire. If you wish to visit the Arboretum just show your University card when you arrive.

• **Oxford University Herbaria** are located in the Department of Plant Sciences. The Herbaria comprise two separate collections: the Fielding-Druce Herbarium and the Daubeny Herbarium. An optional introductory visit to the Herbaria will take place in Hilary Term of your first year.

**H.3. Workspace**
In the Department of Plant Sciences workspace is available at the back of the Common Room, which is found on the ground floor of North Building. You will also find workspace on the first floor of the South Building (follow signage from Plant Sciences Reception).

**H.4 Lecture theatres**
In the first year the majority of lectures will be held in the Museum of Natural History Lecture Theatre, which is on the first floor of the Museum. In your second year, again your lectures will mainly be held in the Museum Lecture Theatre. In the third year the majority of lectures will take place in the Department of Plant Sciences in the Large Lecture Theatre, on the ground floor. All lecture theatres have up-to-date facilities and include hearing induction loops.

**H.5 Teaching laboratories**
In Michaelmas Term Biological Sciences lab practicals will mainly take place in our newly refurbished teaching laboratory at the Zoology Field Station in Wytham and from Hilary Term lab practicals will mainly take place in a high-specification modular teaching laboratory on Mansfield Road, in the Oxford University Science Area.
H.6 Computing

Computers have become indispensable tools in modern biology and you will encounter them in a wide range of activities. You will be introduced to the use of WebLearn in your first term. Many people bookmark or set up the Oxford University home page as the default home page for their personal web browser - from here everything else to do with your life at Oxford is available.

(a) Computing in the departments and colleges

Please note that access to the computing facilities in the Department of Plant Sciences, as well as some University online resources, requires you to sign on using your Oxford Single-Sign-On (SSO) account. You will have received details about this account from your College on arrival.

Wireless internet, via the Eduroam network, is available in the public areas of the two Departments (in Plant Sciences in the Common Room and outside the lecture theatre).

You will have access to the undergraduate Computing Suite in Plant Sciences during departmental opening hours, when it is not in use for teaching. The Computing Suite is on the first floor of the South Building. The computers in the Suite connect to the Biological Sciences teaching server which runs software for the course, including statistical software and programming tools (R), as well as standard software such as Office and Endnote (see Section H.6 (a) (i)). Printing facilities are also available.

If you encounter any problems with the Computing Suite then please contact IT support via email itsupport@biology.ox.ac.uk. Please note that they can only help you with the facilities provided in the Computing Suite. OU ITS helpdesk and your college IT staff may be able to help you with issues with your personal IT equipment.

The undergraduate teaching server can also be accessed remotely from your college room or elsewhere in the world. Please see Section H.6 (a) (i) and the Zoology Sharepoint Site for further instructions.

Access to some of the University online resources from outside Oxford (in fact anywhere else in the world) requires Virtual Private Network (VPN). For further details please see the OU IT Services VPN guidance.

(i) The Biological Sciences teaching server

To access the teaching server from the Computing Suite in the Department of Plant Sciences you must log onto one of the computers in the Suite using your Oxford Single Sign On and password. Instructions are available on a wall chart in the Computing Suite. You can save your work on the O Drive and you will then be able to access it from other locations by logging onto the teaching server remotely - instructions for gaining remote access to the server are available on the Zoology Sharepoint Site.

When you have finished using the teaching server always remember to log off. N.B. We strongly recommend that you back up your work (e.g. on a memory stick) and do not rely solely on the teaching server as a means of storing it.

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8 http://help.it.ox.ac.uk/network/wireless/services/eduroam/index
(b) Oxford University IT Services

Oxford University IT Services provides you with a University email account and offers other optional services. The OU ITS reception, helpdesk and classrooms are at 13 Banbury Road, Oxford, OX2 6NN. The building is open to non-keyholders Mondays to Fridays from 8.30am to 8.30pm in term. Users must register in person or online - you will need your University card with you when registering.

(c) Biological Sciences printing system

Each Biological Sciences student has their own individual printing allowance for occasional printing jobs in the Computing Suite in Plant Sciences. You are currently given a quota of 100 pages per month (set by the Biological Sciences Steering Committee), which is applied at the start of each calendar month. Note that any quota that is not used will not be carried forward to the next month. In exceptional circumstances, additional quota may be granted for specific academic reasons. Please contact the IT support (itsupport@biology.ox.ac.uk) to request a temporary increase of your quota, stating the reasons for the need.

Pages stuck in a print jam are not charged by the system. The printers give ample and clear warnings when the toner is low so refunds will not be given if printing quality is lower than expected due to toner not having been replaced. Additional toner and paper supplies for the printer are held by IT support (itsupport@biology.ox.ac.uk).

(d) Rules

Please note that in using University computing facilities you will be bound by the University’s rules for Computer Use and Information Technology. Details of these rules can be found on the Oxford University IT website and in the University Student Handbook, a copy of which you should have received from your College at the beginning of the year.
H.7 Safety

We have a very positive attitude towards safety – your safety as well as the safety of those around you – and it is your duty to follow all requirements and advice. Here are a few rules and guidelines:

1. No food or drink is allowed in any of the laboratories. The same applies to the lecture theatres, with the exception that bottled water is permitted. Smoking is not allowed in any University building;

2. You will not be allowed to work in a laboratory unless you are wearing a lab coat. You will also be required to wear safety glasses and closed toe shoes. Your first practical class is on the Monday of 1st Week of Michaelmas Term, so you need to be fitted for a lab coat and safety glasses in advance (after your Induction session in the Department of Plant Sciences on Friday 0th Week in Michaelmas Term);

3. Before leaving the laboratory you should always remove your lab coat and gloves, and wash and dry your hands. Lab coats are not permitted to leave the laboratory outside of the carrying bag you are provided with (or similar);

4. Inform a member of teaching staff or a laboratory technician immediately if you have an accident, breakage or spillage. This is absolutely nothing to be ashamed of - accidents happen - but it is important that you take appropriate action and inform a member of staff, so that they can assess whether the accident needs to be recorded in a minor incident book, and so that replacement equipment can be obtained. Similarly, if you feel unwell at any time during a practical, inform a member of staff so that they can make appropriate arrangements for you;

5. If you have any allergies or intolerances (e.g. an allergy to feathers, fungi, etc.) that you think might affect your participation in a particular practical or in fieldwork please inform the Zoology Departmental Safety Officer (neil.carveth@zoo.ox.ac.uk) in confidence ahead of time so suitable arrangements or alternatives can be agreed.

6. You are not permitted to take any items away from the teaching lab unless advised or permitted by a member of teaching staff or a laboratory technician;

7. Tetanus is common in the Oxford area, so please ensure that you are adequately protected and take all appropriate precautions. Those who participate in outdoor practicals or any other fieldwork, including the first year fieldcourse in Orielton, should ensure that their tetanus vaccinations are up to date. If you are in any doubt, please contact your College Doctor;

8. No undergraduate is allowed in a laboratory unsupervised. The only exception is for low-risk activities such as computing (during Departmental opening hours). Outside of Departmental opening hours undergraduates must not be in a computer laboratory unsupervised;
9. Access to either Department outside normal departmental working hours is restricted and requires card access. If this is necessary you will require special permission and you will be informed of additional safety regulations that apply. Normal departmental working hours are given in Section A.3 (g);

10. AT ALL TIMES, SAFETY MUST BE PARAMOUNT.

Please follow all instructions at all times.
I. LIFE AFTER PRELIMS

When you have successfully completed the Preliminary Examination, you will proceed to the Final Honour School (FHS). This is a two-year progressive course containing both compulsory and optional components.

In the first two terms of the second year, which form the first year of the Final Honour School, you will attend two compulsory themes: Evolution and Quantitative Methods. Quantitative Methods will be a continuation of the two year theme that started in the first year course.

There are also six optional themes – you are encouraged to attend lectures within all themes but are expected to attend at least 80% of the optional theme lectures:

ADAPTATIONS TO THE ENVIRONMENT
ANIMAL BEHAVIOUR
CELL AND DEVELOPMENTAL BIOLOGY
DISEASE
ECOLOGY
PLANTS AND PEOPLE

(Please note that the above titles may be subject to change)

You must also take, and perform satisfactorily in, at least 3 of the 6 practical topics that are offered in Michaelmas and Hilary Term of the second year. Registration for practicals is finalised by students at the end of Trinity Term of year 1. You will be provided with more details of the themes and practicals before your first year fieldcourse in Trinity Term. If a student registers for a practical course they are expected to attend it.

The practical courses do not necessarily directly complement the 2nd year Themes but are stand-alone topics which allow students to practice skills and techniques over a full range of lab and field systems.

In Trinity Term of the second year, at which point you become a third year student, the six general themes will diversify into 24 or so specialist options. Students will be free to select any combination of these options. You are recommended to take a minimum of six options but can take more if you wish to do so. Full details of all these options is available on WebLearn but please note that changes may be made prior to delivery of the options.

If undergraduates are seeking opportunities to carry out research or internships during the long vacation you might find it helpful to refer to the document ‘Funding opportunities for undergraduate student research’, which is available on WebLearn. We also circulate opportunities via the weekly term-time Biology Circular from the Biological Sciences Administration team and the University Careers Service.

Students may learn more about the careers alumni have gone into on the Careers Service website.
I.1 Supplementary Subjects

It is possible to attend and be examined in Supplementary subjects in the academic year preceding that in which you take the Part II written examinations of the Final Honour School. At present supplementary subjects are as follows but these are subject to change.

Please consult your College Tutor before enrolling on any of these courses.

(a) Chemical Pharmacology

The Chemical Pharmacology course will provide students with a flavour of how the interplay between chemistry and pharmacology has contributed to the development of drugs. Such drugs have played a major role in advancing our basic understanding of basic biology and certain ones have proven revolutionary in the treatments of some diseases.  

(b) History & Philosophy of Science

This course gives you the opportunity of standing back from the work of the laboratory and considering, in general terms, the history of science and the nature and methods of the scientific enterprise. It offers an introduction to styles of thought and analysis not encountered in normal scientific studies, and a training in writing essays with a different structure and purpose.

(c) Quantum Chemistry

Quantum mechanics forms the conceptual foundation of much of chemistry, and it underpins a wide range of other topics including atomic structure, valence, optical spectroscopy, magnetic resonance, reaction dynamics, and statistical mechanics. It is also an exciting and fun subject in its own right. This course is designed to introduce the techniques of molecular quantum mechanics at a level at which you can actually set up and solve problems relating to the structure and properties of molecules.

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10 http://course.chem.ox.ac.uk/chemical-pharmacology-mt.aspx
11 http://course.chem.ox.ac.uk/history-and-philosophy-of-science-mt.aspx
12 http://course.chem.ox.ac.uk/quantum-chemistry-mt.aspx
J. USEFUL LINKS (some sites require you to log in using your Oxford Single Sign On)

Any links referred to in this handbook are listed below. In the electronic version they are hyperlinked in context:

**Bodleian Library**  
www.bodleian.ox.ac.uk

**Botanic Garden**  
www.botanic-garden.ox.ac.uk

**Careers Service**  
www.careers.ox.ac.uk

**Course changes**  
www.ox.ac.uk/admissions/undergraduate/courses/important-legal-information-about-potential-course-changes

**Course Handbooks (Biological Sciences)**  
https://weblearn.ox.ac.uk/x/V5qCDY

**Data Protection**  
www.admin.ox.ac.uk/councilsec/compliance/dataprotection

**Examination Conventions**  
https://weblearn.ox.ac.uk/x/V5qCDY

**Examination Guidance**  
www.ox.ac.uk/students/academic/exams/guidance

**Examination Regulations (University):**  
www.admin.ox.ac.uk/examregs

**Examination Regulations (Biological Sciences)**  
www.admin.ox.ac.uk/examregs/2016-17/peinbiolscie/studentview

**Harcourt Aboretum**  
www.botanic-garden.ox.ac.uk/harcourt-arboretum

**IT Services:**  
www.it.ox.ac.uk

Computing usage and rules: www.it.ox.ac.uk/rules  
Eduroam Network / Wireless Internet: http://help.it.ox.ac.uk/network/wireless/services/eduroam/index  
Other Service: www.it.ox.ac.uk/do  
VPN Guidance: http://help.it.ox.ac.uk/network/remote/index

**Language Centre**  
www.lang.ox.ac.uk

**Mathematical, Physical and Life Sciences Division (MPLS):**  
www.mpls.ox.ac.uk

MPLS Undergraduate Joint Consultative Forum  
www.mpls.ox.ac.uk/intranet/divisional-committees/undergraduate-joint-consultative-forum

**Museum of Natural History**  
www.oum.ox.ac.uk
Policy on the recording of lectures and other formal teaching sessions by students
http://www.admin.ox.ac.uk/media/global/wwwadminoxacuk/localsites/educationcommittee/documents/policyguidance/Policy_on_the_recording_of_lectures_and_other_formal_teaching_sessions_by_students.pdf

Proctors Office: www.admin.ox.ac.uk/proctors
Procedure for handling complaints and appeals
www.admin.ox.ac.uk/proctors/complaintsandacademicappeals
University Student Handbook
http://www.proctors.ox.ac.uk/handbook/handbook/
Regulations for the Investigation of Complaints
www.admin.ox.ac.uk/statutes/regulations/247-062.shtml

Quality Assurance Agency for Higher Education: www.qaa.ac.uk
Subject Benchmarks

Radcliffe Science Library
www.bodleian.ox.ac.uk/science

Samaritans
www.samaritans.org

Supplementary Subjects
Chemical Pharmacology: http://course.chem.ox.ac.uk/chemical-pharmacology-mt.aspx
History & Philosophy of Science: http://course.chem.ox.ac.uk/history-and-philosophy-of-science-mt.aspx
Quantum Chemistry: http://course.chem.ox.ac.uk/quantum-chemistry-mt.aspx

University Regulations – Statutes and Regulations for Complaints and Academic Appeals
www.admin.ox.ac.uk/statutes/regulations

Unistats: http://www.unistats.com/

University Term Dates
www.ox.ac.uk/about/facts-and-figures/dates-of-term

WebLearn: https://weblearn.ox.ac.uk
Biological Sciences Home Page
https://weblearn.ox.ac.uk/portal/hierarchy/mpls/xmpls/biology
Mathematical, Physical and Life Sciences Division
https://weblearn.ox.ac.uk/portal/hierarchy/mpls

Wytham Woods
www.wytham.ox.ac.uk

Zoology Department: www.zoo.ox.ac.uk
Zoology Sharepoint Site: https://sharepoint.nexus.ox.ac.uk/sites/zooology/SitePages/Home.aspx
Remote Access to Teaching Servers:
https://sharepoint.nexus.ox.ac.uk/sites/zooology/SitePages/IT-Teaching-Servers.aspx
## ANNEX 1 RECOMMENDED PATTERNS OF TEACHING

<table>
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<tr>
<th>Paper</th>
<th>Term</th>
<th>Lectures</th>
<th>Practicals</th>
<th>Tutorials</th>
<th>Classes</th>
<th>Dept/ Faculty</th>
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<td>lectures and all the practicals for this paper.</td>
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*Figures in this table are in sessions unless otherwise stated. Lectures are normally 1 hour in length.*

**Notes**

In addition to this, you should expect to attend Quantitative Methods interactive computing sessions in Hilary Term and Trinity Term of Year 1: 8 and 4 sessions respectively. Quantitative Methods is a two-year course, assessed during the second year examinations.