

Department Of
Animal &
Plant
Sciences.

The
Achievement
Of
Excellence.



Level 1

Undergraduate

Handbook

2011-2012

SECTION 1 GENERAL INFORMATION

1.1 LINKS TO USEFUL INFORMATION

APS Level 1 undergraduate home page

<http://www.sheffield.ac.uk/aps/currentug/level1>

APS modules

Level 1

<http://www.sheffield.ac.uk/aps/currentug/level1/modules>

Level 2

<http://www.sheffield.ac.uk/aps/currentug/level2/modules>

Level 3

<http://www.sheffield.ac.uk/aps/currentug/level3/modules>

Level 4

<http://www.sheffield.ac.uk/aps/currentug/level4>

APS Staff

A full list of academic staff, research fellows and support staff, their contact details and research interests can be found at <http://www.sheffield.ac.uk/aps/staff-and-students>
There is a board on the D-floor that has room numbers for all members of staff.

Level 1 timetable

http://www.sheffield.ac.uk/polopoly_fs/1.91696!/file/Level1-Timetable-11-12.pdf

Student-staff committee

<http://www.sheffield.ac.uk/aps/currentug/staffstucom>

If you are ill then read section 4.5

If you have any queries please email animal.plant@sheffield.ac.uk

Check your University email account every day.

1.2 LIST OF IMPORTANT DATES

Semester 1

| | |
|-------------------------------|--------------------------------|
| 19-23 Sept 2011 | Intro Week |
| Mon 19 Sept 2011 | Registration Meeting |
| Thu 22 Sept 2011 | Intro Meeting |
| Mon 26 Sept 2011 | Start of Autumn Semester |
| Mon 26 Sept to Fri 7 Oct 2011 | Add/Drop Period |
| Late Oct/Early Nov 2011 | Meeting to discuss Exam Issues |
| Sat 5 Nov 2011 | End of Semester 1A |
| Mon 7 Nov 2011 | Start of Semester 1B |
| Mon 7 Nov to Fri 11 Nov 2011 | Add/Drop for APS modules ONLY |
| Sat 17 Dec 2011 | Break for Christmas Vacation |
| Mon 16 Jan 2012 | Return from Christmas Vacation |
| Mon 16 Jan to Sat 4 Feb 2012 | Autumn Semester Exam Period |

Semester 2

| | |
|-------------------------------|--|
| Mon 6 Feb 2012 | Start of Spring Semester |
| Mon 6 Feb to Fri 17 Feb 2012 | Add/Drop Period |
| End of Feb 2012 | Semester 1 results posted on Floor B1 Notice Board |
| Early/Mid Mar | Level 1 SGDP Meeting |
| Sat 17 Mar 2012 | End of Semester 2A |
| Mon 19 Mar 2012 | Semester 2B Starts |
| Mon 19 Mar to Fri 23 Mar 2011 | Add/Drop for APS modules ONLY |
| Late Mar 2012 | Module choice meeting |
| Sat 31 Mar 2012 | Start of Easter Vacation |
| Mon 23 Apr 2012 | Return from Easter Vacation |
| Early May 2012 | Online Module Choice commences |
| (14 to 18 May 2012) | Last Week of Term and End of Year Meeting** |
| Sat 19 May 2012 | End of Semester 2B |
| Mon 21 May to Sat 9 Jun 2012 | Spring Semester Exam Period |
| Sat 9 Jun 2012 | Start of Summer Vacation |
| End of Jun 2012 | Semester 2 results posted on Floor B1 Notice Board |

**Subject to confirmation

6-24 Aug 2012

Supplementary Exam Period**

1.3 INTRODUCTION

This handbook has been prepared to provide you with all the information we think you need to know about the courses that we teach, the staff that teach them, the methods of teaching and assessment used, and the administration of the Department. In addition there is information on student support services and health and safety.

This handbook is designed to complement the University and Animal and Plant Sciences web pages where we provide additional information and resources for both students and staff. This means that if you have queries about finding things, how to go about doing something, who to contact, etc. in the University, then the University web site, or the web pages for Animal and Plant Sciences are a good place to start looking.

As a registered member of the University you will also be provided with access to MUSE (My University of Sheffield Environment) that acts as an electronic gateway (or portal) to a number of other resources. The most important of these are MOLE (my Online Learning Environment) and uSpace. We will place course specific material (such as handouts, self-assessment exercises, data files and places for submitting coursework electronically) on MOLE and more short-lived data (job opportunities, questionnaires) on uSpace. You should have information about MUSE and how to use it in the introductory information you receive from CICS.

We are a large department within the School of Biological Sciences, which itself is one of the largest groupings of biologists in the UK. This makes our task of liaising with you all the more important. We are also one of the most highly ranked departments in the UK for both teaching and research. The Department and its members thus have a lot to offer you and we hope that you will continue to enjoy your studies here.

The staff of the Department have a good reputation for helpfulness and we have several mechanisms for consultation about matters of concern to you. It is in your interests that you take full advantage of these mechanisms and we will always do our best to respond positively to any suggestions or complaints that you have.

In return we do ask that you help us by reading this document, monitoring the web and checking your **University** email account daily to ensure that you have the information you need and by providing us with information when this is required. Please read carefully the section dealing with illness, as this could affect your examination results. Please also read the Student Information Noticeboard on B1 floor, opposite the lifts, regularly and carefully.

We hope that you will find all the information you will require in the following pages. We would welcome your comments on the handbook as we seek to improve it for future years.

1.4 ADMINISTRATION

The Department of Animal & Plant Sciences.

The Department is one of the largest in the University. The Head of the Department is **Professor Lorraine Maltby**.

The staff who hold responsibilities that are of most relevance to you are as follows:

| | | |
|----------------------------------|---|--|
| Dr Penny Watt | - | Level 1 Year Tutor and Student Disability Officer |
| Dr Jon Graves | - | Level 2 Year Tutor |
| Dr Charles Wellman | - | Level 3 Year Tutor |
| Professor Ben Hatchwell | - | Level 4 Year Tutor |
| Dr Stephen Rolfe | - | Director of Teaching |
| Professor Richard Leegood | - | Examinations Officer |
| Dr Charles Wellman | - | Deputy Examinations Officer |

A large part of the administration in the Department is centred on the Departmental Office. The office is situated on D-floor of the Alfred Denny Building. The office is open 9am – 5pm Monday – Friday, all general enquiries can be made here.

If you have any queries concerning undergraduate matters you should email animal.plant@sheffield.ac.uk. This will then be passed on to the appropriate member of staff.

It is vital that you check your University e-mail regularly.

All official notices concerning teaching and examinations are posted on the notice-boards on B1-Floor (next to the lifts).

1.5 The Faculty of Science.

The Faculty of Science oversees all the arrangements that Departments and Schools make concerning admissions, teaching, examinations and the award of degrees. The Faculty is responsible for ensuring that the University Regulations concerning teaching and examining are upheld and that standards are maintained.

SECTION 2 AIMS OF THE DEPARTMENT OF ANIMAL & PLANT SCIENCES

2.1 Mission Statement of the University

The mission of the University is to maintain the highest standards of excellence as a research-led institution, whose staff work at the frontiers of academic enquiry and educate students in a research environment.

You can find it online at <http://www.sheffield.ac.uk/strategicplan>

2.2 Mission Statement of the Department of Animal & Plant Sciences

- to undertake research at the highest level of international standing directed towards an understanding of the integration of whole organisms and the interactions of organisms with each other and with their environment.
- to educate undergraduate students in a research environment, and to produce graduates who will compete successfully in the graduate job market or be well qualified to undertake postgraduate training.
- to provide research training of the highest quality, and to produce post-doctoral research workers who are capable of becoming successful research biologists.

2.3 The Department of Animal & Plant Sciences implements its mission statement through its strong commitment to teaching and research.

2.4 Teaching aims of the Department of Animal & Plant Sciences.

- provide teaching that is informed and invigorated by the research and scholarship of its staff and is stimulating to and enjoyable by students.
- provide a curriculum for each of our degree course subjects that develops a broad understanding of the subject together with a more detailed and critical understanding of selected areas.
- provide a supportive environment for students with effective mechanisms for referral to specialist services when required.
- develop in students an independence of thought, intellectual curiosity and a critical approach to evidence, theories and concepts.
- develop in students a range of subject-specific and generic skills appropriate to employment both within and outside of biology.
- enable students to maximise their academic potential in all aspects of their chosen course.
- assess students over a range of skills and identify, support and encourage academic excellence.
- impart to students an awareness of the importance of commitment to and skills relevant to life-long learning.
- widen access to our degree programmes to the extent permitted by the intellectual aptitudes demanded by the programmes.
- prepare students for postgraduate work and a professional career in biology.

2.5 Degree Course Objectives.

Arising from these aims are general objectives for all our degree courses. Objectives are what you as a student should achieve and so by the time you graduate you should:

- be able to demonstrate a broad understanding of your degree subject(s).
- be able to demonstrate a detailed knowledge in selected areas of your degree subject(s).
- have obtained experience in the laboratory and, where appropriate, the field.
- be able to demonstrate skills in the acquisition, use and critical evaluation of subject-related information.
- be able to demonstrate effective skills in communicating scientific results, ideas and arguments both orally and in writing.
- be able to demonstrate quantitative and computing skills sufficient to aid data generation and analysis and report presentation.
- have applied the skills you have acquired in research-related project work.
- have acquired effective study habits and the ability to work effectively both as an individual and as a member of a team.
- be well qualified for employment in the graduate job market.
- be able to assess whether or not you have the ability, motivation and interest to pursue postgraduate training.

All our degree courses are designed with these objectives in mind, and teaching methods in the Department are designed to help you achieve the objectives set for all our degree courses. What we aim to provide is a progression from year to year that builds up the overall degree course objectives.

2.6 Aims of the first year course (Level 1):

- to provide a modular course that covers a wide range of biology.
- to enable students to choose modules within their degree course structure that are appropriate to their interests.
- to enable students to acquire basic laboratory experience in biology.
- to provide a personal and academic tutorial system that develops the communication and data interpretation skills of students.
- to allow flexibility within Level 1 such that students have an opportunity to change degree course within the School of Biological Sciences provided they have chosen appropriate modules.
- to provide students with a sound academic base for progression to Level 2.
- to provide students with the opportunity to assess their progress by formative feedback in tutorials and by summative feedback from modular assessments.

2.7 Aims of the second year course (Level 2):

- to enable students to develop further their knowledge and understanding of specific areas of biology.
- to expand students' laboratory experience in specific areas of biology in terms of the diversity of organisms, the design and execution of experiments and, where appropriate, field work.
- to develop students' skills in the analysis and interpretation of biological data.
- to develop students' skills in the use of information technology.
- to develop students' skills in the presentation of biological data.
- to provide experience of collaborative team work.
- to provide a personal and academic tutorial system that further develops students' communication and data interpretation skills.

- to provide students with the opportunity to assess their progress by formative assessment in tutorials and by summative assessment in modular examinations.

2.8 Aims of the third year course (Level 3):

- to enable students to study selected areas of biology in depth.
- to expose students to the most recent advances in selected areas of biology.
- to further enhance students' ability to analyse, criticise and evaluate biological data and alternative viewpoints.
- to enable students to carry out a research project under supervision.
- to enable students to write a dissertation on a topic of their choice.
- to develop students' self-reliance and time-management skills by their organisation of work for projects, dissertations and examinations.
- to provide students with the opportunity to obtain formative feedback from their supervisors and summative feedback from modular assessments.

2.9 Aims of the fourth year course (Level 4):

- to enable students to analyse, criticise and evaluate biological data and alternative viewpoints at an advanced level.
- to enable students to research an area of biology in depth by means of a dissertation and research project under supervision.

- to develop advanced research-specific laboratory and/or field skills.
- to develop communication skills and to enable students to communicate science to professional and public audiences.
- to expand students' understanding of how research is funded and published.
- to develop an understanding of entrepreneurship and the commercial utilization of biological systems.
- to provide students with the opportunity to obtain formative feedback from their supervisors.
- to further develop students' self-reliance and time management skills by their organisation of work for projects and dissertations.
- to provide advanced training in generic skills necessary to become a career biologist.

2.10 Module Objectives

The modules that you will take during your degree course will cover all of these aims and help you to achieve your overall degree course objectives; clearly not all objectives will be relevant to each module, some will develop specific skills, others will cover a broader range.

You will receive, at the start of every module, a set of aims and objectives for that module. These objectives will indicate what you are meant to achieve.

SECTION 3 TEACHING METHODS

The teaching methods throughout your degree are in the form of practicals, tutorials, lectures, self-directed learning and, at Levels 2, 3 and 4, will include project work, dissertation work, workshops, seminars and field courses.

3.1 Lectures.

You should always attend lectures and take your own notes. Do not rely on other people's notes (unless you are ill and cannot attend a lecture). Strike a balance between making notes and listening carefully. Try to understand the main points of the lecture and make sufficient notes to enable you to recall each of these points afterwards. Do not attempt to write down every word the lecturer says.

Good notes often include headings and subheadings, underlining or highlighting, and a clear layout on the page. It is very useful to leave a wide margin at one side, so that you can add extra points later – details from textbooks, references, clarifications. Use abbreviations in note-making, but make sure that you know what they mean. It is essential that you should read through your notes as soon as possible after a lecture to make sure they make sense and you understand them. If you do not understand your notes either seek help immediately or consult textbooks to clarify the situation. This is best done while the topic is still fresh in your mind. Talking to your classmates may help clarify things.

All lectures are scheduled to last for fifty minutes, although not all lecturers choose to use the full time. Lecture times are standardised throughout the University. They start on the hour and are 50 min long (e.g. 9:00 – 9:50 am).

You should always arrive at a lecture at least a few minutes before it is due to start. You might need to pick up a hand-out and you will certainly need to organise yourself to take notes. Late arrival at lectures is discourteous and disruptive for the lecturer and other students. It also shows an inability to organise your time effectively. You will also find it difficult to understand a lecture if you miss the beginning. Lecturers have the right to refuse admission to latecomers.

3.2 Attendance Monitoring

As a student, it is most important that you attend regularly all the lectures, tutorials, laboratory sessions etc. that are listed in your timetable or that are communicated to you as the semester proceeds. It is only by attending all of the scheduled sessions you will be able to learn effectively, and it is for this reason that the Student Charter notes that students are expected "*to attend throughout each semester, including the full examination period. This means turning up on time to all designated teaching sessions, tutorials, laboratory sessions and all assessment*". To help ensure that you make full use of the learning opportunities that are available, the department will be monitoring the attendance of students at twelve or more sessions throughout the year. The monitoring will be carried out using systems that have been developed by the University specifically to help departments identify and support students who are having difficulty with their study programme.

Within this department, attendance will be monitored at introductory level meetings, tutorials, practicals, project and dissertation supervisory meetings, by completion of key elements of coursework and attendance at examinations.

3.3 Self-Directed Learning.

In the broadest sense self-directed learning is all the work you do when you are not in lectures, seminars, workshops or meetings. Self-directed learning will thus occupy more than half your working week. Some of this work will be clearly defined, for example the work you have to do for tutorials, lectures, projects and dissertations. For this work you will have to organise your time effectively and meet deadlines for the completion of work. Some modules will also include student-centred learning which involves reading and the preparation of material for assessment. Other aspects of self-directed learning are less clearly defined. For example, ensuring that your lecture notes are clear, comprehensible and comprehensive.

It is also expected that you will read books and papers that are recommended for each module. At level 1 each taught lecture module has two research papers that you must read. At level 2 this directed reading increases to 5-6 research papers for each taught lecture module. This directed reading is the **minimum** that is required for the course. You are also expected to read additional material to consolidate the material covered in lectures and increase the depth of your knowledge and understanding. You should organise your time to allow for some general subject-related reading each week. At levels 3 and 4 you are expected to read widely using both resources provided to you and those that you find yourself.

3.4 The Sheffield Graduate Development Programme (SGDP).

The SGDP will help you gain the most from your time at University in order to improve your employability. If you have a firm career objective, it will help you

develop the portfolio of skills and experience required to achieve your aim. If you are uncertain as to your career ambitions it will help you explore your career options.

Employers not only want candidates to have a good degree but also to have developed and documented their skills and experience relevant to the job they are applying for. Therefore an important output from the programme is the development of a Personal Development Record (PDR). The PDR can be in the form of an effective CV that is kept under constant review and development throughout your degree. All students will be required to do this. In addition the PDR can be enhanced by participation in the Skills for Work Certificate or the Sheffield Graduate Award both accredited programmes run by the University.

Your personal tutor will play an active role in assisting you with progression of your personal development. You will normally meet with your tutor at the end of each semester to review your PDR.

There is much to be gained from keeping the PDR, and it is more than just a tool for recording and keeping relevant pieces of information. Used properly, it is a valuable means of helping you understand and reflect upon your experiences and how the learning you acquire as a result can be transferred to new contexts, such as the work place. Being able to evaluate your own progress in this way can help you to set your own personal goals and plan for the future. This will help you to become a more effective, independent and confident learner, both during your undergraduate studies and throughout your future career.

3.5 Life-Long Learning.

During your time at University you will develop skills that will be essential to your employment prospects over a long period. You will spend your working life in a society in which knowledge develops rapidly and working practices change accordingly. To be successful you will need to continue learning throughout your life; you will also need to be flexible and adaptable. It is essential you realise that your time at university is not an interlude between school or college (or previous employment) and the world of work, but part of a continuous process. The skills that you develop in finding, analysing and presenting information, in organising your time effectively and in using information technology will form a basis for a life-long process of learning. The development and use of these skills during your time at university will ensure that you will be able to use them throughout your working life to enhance your employability.

3.6 Organising Your Studies.

One of the most efficient routes to being successful in your studies is effective use of your time. As a student you need to find the right balance between relaxation and study. An indication of the minimum amount of time you should spend each week on your academic work is given in Section 4.3. Part of this time is fixed with regular lectures and project work. You will also have deadlines for handing in project reports, dissertations and other course work. [Examination dates](#) will also be announced well in advance. These fixed times form a framework for the whole academic year, within which you can organise your time. You should make a note

of all the fixed dates, in your diary or on a wall planner, so that you can plan your tasks for the semester or for the year in perspective.

Weekly study plans are also an important way of using your time efficiently. Each week you could make a chart, and enter details for that week, starting with the times of your lectures, seminars and meetings with project/dissertation supervisors. Mark in any other commitments you have for the week. You should then allocate blocks of time sufficient to prepare for events such as discussion groups and meetings with project/dissertation supervisors. Allocate blocks of time for project or dissertation work, report writing, coursework and preparation for examinations. You may need to plan over a longer time span than a week for some of these. Your weekly plan should include reasonable amounts of time for eating, sleeping, travelling, exercising and relaxing. Allocate some time at the end of each day to review your progress.

You should aim to plan other study time during periods when you know you can study most effectively. It is important to select the best time of day and this is a wholly individual matter. Try, as far as possible, to devote at least part of your “best” time each day to serious study.

Your weekly study plan is only meant to be a guide and so it needs to be both flexible and realistic.

3.7 Using Your Study Periods Effectively.

Everyone works and studies in their own way. There is no one way of studying which can be guaranteed to work for all students. To be successful in your studies

you must develop your own study skills - try out different techniques, select the ones which work for you and stick with them.

Effective study requires a comfortable place to work, minimal distraction and accessible books and notes.

Length of study periods is important but again this is an individual matter. Long sessions are not always advisable and should certainly contain a few short breaks. Make sure you have a short break between each study session. You need to set yourself a realistic goal within the time limit of your study session. You may wish to use it to check and expand lecture notes, to prepare coursework, to read a chapter in a textbook or read a scientific paper. Whatever your goal, do not try to do too much in one session.

Try to concentrate while you are studying. Concentration involves actively processing the material being presented. The length of time for which you can concentrate fully will vary, of course, but, unless you can concentrate, your study sessions will not be productive. If you are finding it hard to concentrate, then try switching to another subject. A short break may also restore your concentration. If you find you cannot concentrate any longer, then take it as a signal to stop studying and relax.

3.8 Reading Effectively.

Effective reading varies according to the material you are reading. In general, however, you can get the “gist” of a text without having to process every single word. With practice, you can increase your word span to five or six words, and increase your reading rate to several hundred words per minute. With course

materials it is almost certain that you will need to read them more than once to understand them. To gain an understanding of what you are reading you might, for example, first scan the text quickly to get a broad overview of what it contains. Then read it again more slowly, picking out the main facts and ideas and how they are developed. Finally read it again in detail.

You should aim to read with attention and comprehension, making sure you understand all the important concepts and, at the same time, carefully evaluating the material in the light of what you already know. This is the stage when you might find it helpful to make notes of the more important ideas and facts in the text and a summary of the key points.

3.9 Field Courses.

Degree courses in the Department of Animal & Plant Sciences may include either a compulsory or an optional field course. Field courses may be based in Sheffield or at other locations. Where field courses are based away from Sheffield accommodation will be arranged by the Department. In such cases you will be expected to make a contribution to the costs of accommodation and travel to and from the course. You will be told the costs associated with a field course at the Field Course Meeting. Where field courses are based in Sheffield you will be expected to provide your own accommodation. Wherever possible Sheffield-based field courses will be held in the first week or last week of a vacation. The degree course regulations for individual degree courses state whether a field course is compulsory or optional.

SECTION 4 RESPONSIBILITY FOR LEARNING

4.1 The Students' Charter.

University students are expected to take a large part of the responsibility for their own learning. This is a two-way process, however, and the University and its academic staff also have responsibilities. These responsibilities are listed in detail in the Students' Charter. You should read the Students' Charter and note your responsibilities. See <http://www.shef.ac.uk/ssid/ourcommitment/charter>.

4.2 Summary of Responsibilities.

The section below summarises the responsibilities of staff and students.

The Provision of Teaching.

You can expect us to:

- provide teaching that is authoritative, up-to-date, student-centred, well-planned and supported by appropriate materials.
- give you aims and objectives for modules and degree courses that will clearly indicate what is expected of you.
- use fair and efficient methods of assessment.
- provide accommodation and facilities that are fit for the purpose and in accordance with Health and Safety requirements.
- give you accurate information about courses, assessments and timetables.
- treat all students equally regardless of sex or ethnic background.

Your Responsibilities.

You will be expected to:

- attend all lectures, meetings with your project and dissertation supervisors, field courses and examinations that are a part of your degree course.
- arrive at all lectures and meetings punctually; late arrival not only indicates an inability on your part to organise your life, but is also disruptive and you might be turned away if you arrive late.
- hand in all course work on or before the specified deadline.
- read and note the information and guidance provided for you, and act on it accordingly.
- check carefully your registration details and report any errors or discrepancies immediately.
- ensure that proper procedures are followed when you wish to change registration details, e.g. address, module or degree course.
- do enough work to meet the requirements of your degree course.

4.3 How Much Work Is Enough?

During the course of an academic year you will take 120 credits of modules. According to University-wide guidelines, one credit is equivalent to ten hours work. A ten credit half-module would thus require a total of one hundred hours work. In total you are expected to undertake a minimum of 1,200 hours of study each academic year.

These workloads include all the work associated with a module, including time spent in preparing for examinations or other assessments. This is intended to be a general guide not a rigid prescription. If you are taking 60 credits in a semester you should expect to spend a minimum of thirty-six hours each week on your academic studies. Depending on your year of study and module choices the time that you will spend in lectures, workshops, seminars and meetings each week will vary but a typical average is about eight hours. This means that you should expect to spend at least an additional twenty eight hours each week on upgrading your lecture notes, working on your project or dissertation, reading appropriate books and scientific papers, completing course work and preparing for meetings with your project/dissertation supervisor.

Remember that thirty six hours each week is a **minimum**; you will need to do more than this sometimes especially in the period before examinations.

4.4 What Happens If You Do Not Do Enough Work?

The most obvious consequence of not doing enough work is that you are likely to fail the assessment for one or more modules. Read SECTION 12 on Examinations for more information about this.

Before you reach this stage, however, you might find yourself subject to the Progress of Students Regulations of the University.

These Regulations **require** you

- a) to attend punctually and regularly lectures and classes;
- b) to complete all written assignments, practical or other coursework;

- c) to attend all examinations.

In the Department of Animal & Plant Sciences attendance at lectures is not monitored. You would be foolish, however, to miss any lecture as the work involved in catching up is more than is involved in attending in the first place. Also you cannot expect to receive information about modules and courses that is given out at lectures if you do not attend. You are expected to attend all lectures.

It is **compulsory** for you to attend tutorials (your tutor will keep an attendance register). Failure to attend tutorials and complete the work associated with it will result in you being interviewed by the Year Tutor or Director of Teaching and may result in you being reported to Faculty for unsatisfactory performance. If you do not attend tutorials then you cannot pass the tutorial module – this will prevent you from proceeding to the next level of academic study.

It is also **compulsory** for you to attend practicals (an attendance register will be kept). Again, failure to attend practicals and complete the associated work will prevent you from proceeding to the next level of academic study. If you have not signed the attendance register then you will be recorded as absent. Work will **not** be accepted from students who have not signed the attendance register.

It is **compulsory** for you to perform project and dissertation work at levels 3 and 4. This work is assessed and used in the determination of your degree classification. If you do not complete and hand in this work you will receive a zero grade assessment.

The University Regulations allow a student to be reported to the Faculty for:

- a) failure to attend the programme of study for which the student has registered.
- b) failure to perform adequately the work of the course.
- c) failure to present at the times appointed such written work as may have been required.
- d) failure to pass an examination.

You can be reported to the Faculty at any time for unsatisfactory progress and the Faculty has the authority to expel you from the University.

4.5 What If You Are Ill or Need To Be Absent For Any Reason?

When you are absent from the University for relatively short periods of time, for instance, less than one week, or when any period of absence affects examinations or assessments you can use the **University Special Circumstances Form** (which can be obtained from the D Floor Departmental Office or online at <http://www.shef.ac.uk/ssid/forms/special>) to report your absence and any implications for your studies. This form must be signed by your Year Tutor.

These forms should be used for all periods of absence such as:

Medical circumstances (sickness, injury, surgery/hospitalisation etc.) which have resulted in a period of short or longer term absence and/or which have affected performance or examinations/ assessment.

Other personal circumstances which have resulted in a period of absence and/or which have affected performance or examinations/assessment, Examples include: personal/family problems, difficult events (e.g. bereavement), serious incidents (e.g. being affected by crime).

When you have been away due to illness you should always contact the member of staff responsible for work you have missed to see whether you need to catch up on any work. You should also inform your personal Tutor and Year Tutor.

If your illness or an emergency will result in a long absence you should contact **your relevant year tutor** to discuss this issue.

The golden rule is that if you are absent make sure that the appropriate members of staff know about it. For longer absences or any problems affecting examinations or assessment you should always email animal.plant@sheffield.ac.uk as soon as possible so that the department is aware of the problem.

4.6 Level 2, Level 3 and Level 4 - Submission of Coursework.

All coursework deadlines will usually be set at **12 noon on Wednesdays**¹.

Late penalties will be applied for work that is submitted after this deadline (see section 4.7). Penalties will be applied for work that is over-long (see section 4.8).

To submit coursework you should follow this series of steps.

- Complete your coursework and check it thoroughly.
- Calculate the word count (excluding references, figure legends and tables).
- Download a copy of the appropriate coursework coversheet from <https://sciencecoversheet.group.shef.ac.uk/>
- Look at the module description to see what should be submitted to the TurnItIn plagiarism detection system. Submit an electronic copy of your

¹Please note that due to the term dates of semester 1B the deadline for semester 1B modules has been set as Friday 16th December 2011.

coursework to TurnItIn via MOLE. You should keep a copy of the electronic receipt and enter the **paper ID** provided as part of this receipt onto the coversheet.

- Complete the coversheet for the appropriate Module, ensuring you include your TurnItIn ID Number and word count, print off and attach to your coursework (Please ensure a coversheet is attached to Lab books, etc)
- Post your coursework and completed coversheet into the black metal box in the Alfred Denny Building Foyer before the deadline.

Notes:

Work will not be accepted without a completed coversheet. This means that you must have submitted an electronic copy to TurnItIn before handing in the paper copy. Work submitted without the TurnItIn receipt number and word count on the coversheet will not be accepted and will be considered as a late submission.

The electronic copy must be identical to the paper copy (except for posters where only text is required). If your document exceeds the allowable size that can be accepted by the TurnItIn system then either remove the figures or convert the document to a PDF. If the electronic copy differs significantly from the paper copy this may be considered as the use of unfair means.

The word count must be accurate. You should use the word count feature in Word (or other word processor software) to provide the word count. If the actual word count is significantly longer than that entered on the cover sheet (and would be penalised as an overlong submission) then this may be considered as the use of unfair means.

4.7 Penalties for late submission of work

Where work has to be handed in for assessment, clear deadlines will be issued in either the Student Handbook or course handouts. Deadlines for submission of work will normally be set at mid-day on a Wednesday. Work should be handed in along with a front cover sheet (these can be printed off on the web page <https://sciencecoversheet.group.shef.ac.uk/>) to the metal box in the Alfred Denny Building Foyer.

Late submission will result in a deduction of 5% of the total mark awarded for each working dayⁱⁱ after the submission date.

| Day late | Mark reduced by 5% | Mark Awarded When Reduced by 5% ⁱⁱⁱ | |
|----------|--------------------|--|-------------|
| | Multiply by | Original 60 | Original 50 |
| 1 | 0.95 | 57 | 48 |
| 2 | 0.90 | 54 | 45 |
| 3 | 0.85 | 51 | 43 |
| 4 | 0.80 | 48 | 40 |
| 5 | 0.75 | 45 | 38 |

ⁱⁱ Working days includes working days within standard vacation times. For example, if a submission date falls on the last day before the start of the Easter vacation, penalties would start to be applied from the following working day and not from the first day following the vacation.

ⁱⁱⁱ Standard mathematical rounding rules are applied – e.g. 50.4 is rounded to 50, 50.5 is rounded to 51

The 5 working day deadline for late submission is absolute and any work submitted after the 5 working day period without a special dispensation will receive zero.

It is recognised that there could be circumstances, such as illness, where work cannot be handed in on time. Permission to hand work in late must be agreed in advance with the year tutor or, if they are not available, the Director of Teaching, **Dr Stephen Rolfe**. No other member of staff can give permission for the late handing in of work. You must complete an **Application for an Extension to the Deadline for Assessed Work** form which is available from the Departmental Office on D-floor. **If you need to contact the department urgently concerning late submission of work and are unable (for good reason) to come into the department then email animal.plant@sheffield.ac.uk immediately.**

Please note that only exceptional circumstances will be accepted as a reason for the late handing in of work. The inability to organise workloads, long printer queues or failure to back up data files and subsequent data loss will not be accepted as legitimate reasons to meet deadlines.

4.8 Penalties for overlong work

When a word limit has been given (e.g. 1500 words) then work will be considered over-long that exceeds this limit. The word count does not include the references at the end of the piece of work, figure legends or tables. It does include references within the main body of the text. Work that exceeds the word limit will have a penalty of 10% of the awarded mark deducted for every 10% that the word limit is exceeded. You should note that not all coursework has a word limit of 1500 words. Read the instructions given to you carefully.

You are required to write the word count on the coversheet that is submitted with the printed copy of the document. This must be accurate, within reason. However, if this word count is very inaccurate (e.g. someone enters 1500 words as the word count and has really submitted 2500 words) then this would be considered use of unfair means.

4.9 TurnItIn Submission

All coursework must be submitted electronically to the JISC TurnItIn system (accessed via MOLE) prior to the handing in deadline. Work which is not submitted to this system will be penalised according to the late submission penalties. The material that must be submitted to TurnItIn varies between modules and details are given under each module descriptions at the end of this handbook. If you have any problems with a submission to TurnItIn contact Professor Richard Leegood.

What is JISC?

JISC stands for the Joint Information Systems Committee. It is a national body funded by all the UK higher education councils. JISC runs an electronic submission system called 'TurnItIn' which provides a repository for student work which is used by many Universities in the UK. The JISC system provides an electronic system for the detection of plagiarism and collusion.

All tutorial essays at levels 1 and 2 and all coursework at level 3 and 4 must be submitted via JISC. The JISC site at http://www.submit.ac.uk/static_jisc/ac_uk_training.html provides training videos

and user manuals. The key information you need is described below but look at this site if you have any further questions (e.g. concerning copyright ownership etc).

To submit a document

Make sure that your work is completed and checked thoroughly. The version submitted to TurnItIn must be identical to the hard copy submitted to the office. Make sure you know where the file has been saved and that you are submitting the right version to the correct module. Check the size of the document. TurnItIn will not accept files larger than 20 Mb which can be exceeded if you have incorporated many graphics (convert the file to a PDF and submit this if this is the case).



Log into MOLE and click on the relevant module. A TurnItIn tool should be present where you can submit your work. Follow the instructions onscreen.

You will learn how to use this in APS132 Skills for Biologists 1. Make sure that you keep a note of the digital receipt.

What will the electronic version be used for?

- The JISC TurnItIn system produces an originality report by comparing the work submitted to the system against a database of other written work which have been submitted and information available via the Internet.
- The originality reports will be reviewed by the Examinations Officer
- The bibliography and reference lists will be excluded from the analysis
- If there are concerns, the Examinations Officer will investigate and discuss with the relevant member of staff.

- If there is a problem, you will be interviewed so that you can put forward your views.

It is important to note that, at all stages, decisions about student work will be made by the Department of Animal and Plant Sciences in accordance with the University of Sheffield guidelines.

How can I avoid plagiarism?

Your personal tutor will explain this to you in level 1 and 2 tutorials. Our aim is to help you to reference material correctly and avoid plagiarism (collusion is copying from someone else - you should already know not to do this!). The penalties for plagiarism and collusion are severe.

The library has produced an excellent online guide available at

https://librarydevelopment.group.shef.ac.uk/shef-only/info_skills/Plagiarism/contents.html

Read, Learn, Assimilate And Understand

Most cases of plagiarism occur because a student has not really understood what they have read. If you have not understood something, it is impossible to write it in your own words. It also means that you cannot combine information from different sources - this synthetic element is an essential component of the assessment.

Cite Your Sources Of Information

Proper referencing is essential. When you are reading a paper, make notes in your own words. If you copy out sections of a paper directly, you may inadvertently use

the text unaltered in your work. Keep a note of where the information came from so that you can cite it properly.

You can place text in quotation marks (and cite it) if you wish to quote a small amount of text directly (perhaps the conclusions from a report or a key phrase from a landmark paper).

The library has an excellent online guide specifically for scientific writing at:

http://www.librarydevelopment.group.shef.ac.uk/shef-only/referencing/aps_harvard.html

Frequently Asked Questions

How is the originality report used? The originality report is used as a tool to detect plagiarism and collusion. However the system is not automatic. All originality reports will be reviewed by the examinations team. If a potential problem is identified, this will be discussed with the relevant member of staff. At level 1 and 2, if you have plagiarised work accidentally, your tutor will discuss this with you and ask you to repeat the assessment (to use a football analogy – this is a yellow card). If you plagiarise work again then you will fail the module (red card) and be reported to the year tutor. At level 3/4 there is no warning system and plagiarised work will automatically be awarded a 0. For repeat offences students will be referred to the University Disciplinary Panel who may award a fail grade for the entire module or expel students from the University.

Can I see the originality report? No, not normally, but if there is a problem your tutor/examinations officer will show it to you and discuss it with you.

I quoted a paragraph from a report in my essay. Will this be classed as plagiarism? No. The Originality report will indicate that this section has been copied verbatim, but if it is placed in quotation marks and referenced, this is not plagiarism. All decisions are made by academic members of staff - it is not an automatic system.

What format should I use for uploading my coursework? Microsoft Word is the most sensible format (although many other formats are also recognised). For large pieces of work use PDF.

My essay has pictures which I have hand-drawn or photocopied into the printed version. How do I deal with this in the electronic submission? The TurnItIn system only looks at text. You don't need to remove images from your uploaded file, but these will be ignored. The printed version that you hand in to the departmental office is the definitive version that will be marked. If the document is too large because of embedded images, use the PDF format.

I uploaded the wrong file and cannot delete it from the system. What do I do? Simply re-submit the piece of work again to the same slot (providing this is before the submission deadline). If after the deadline contact Prof Richard Leegood.

My file is too large to upload. Either remove a couple of images or convert the file to a PDF document. The managed desktop system has software which enables you to do this and Word 2007 can save a file directly as a PDF.

My tutor has asked me to submit a draft of the essay first. Where should I submit this, and the final copy? Both the draft, and the final copy, should be submitted in

the same assignment. It is highly likely that text in the draft version will appear in the final version.

What about other tutorial work (e.g. abstracts, data interpretation exercises etc)?

You only need to submit tutorial essays and coursework to the TurnItIn system. Check the module descriptions to see what is required.

4.10 Feedback.

You will receive feedback on your performance at numerous times throughout your studies. However, it is your responsibility to take advantage of the opportunities available to you and to act on the advice given. Details of feedback for each module are provided in the module descriptions.

At levels 1 and 2 you will receive feedback from your *personal tutor* on work that you undertake as part of the tutorial modules. You can also write practice examination questions using past papers (available online) and ask your tutor to provide feedback on these. At levels 3 and 4 you will receive feedback from your *project/dissertation supervisor*. This feedback may be verbal (e.g. a discussion of an experimental plan that you have proposed) or written (comments on work that you have submitted for feedback). However, you can only receive feedback on work that you have submitted! For project/dissertation work there are deadlines after which your supervisor can no longer provide feedback and limits (25%) of the amount that they can review. It is your responsibility to ensure that you have submitted work for comment at intervals and well in advance of these deadlines.

Most level 1 APS lecture modules have compulsory self-assessment tests that you must complete online (via MOLE). These will provide feedback on your

understanding of the course. In addition you will receive a summary of your performance in level 1 multiple choice examinations after the Autumn examination results are available. Other modules (e.g. APS132 Skills for Biologists 1) have additional assessments that will provide feedback. You will also receive feedback on practical classes.

At levels 2 and 3 you will be given the grades you obtained for field course work at an early stage to enable you to judge your progress. You will also receive feedback on your performance in coursework submitted in semester 1A and semester 2A before the end of the teaching semester whenever possible.

The grades you obtain in examinations will give you the clearest idea of your progress. You will obtain the results of your Autumn Semester examinations in February and after the results are published you will have the opportunity to discuss these with your personal Tutor. This will include the opportunity to see your marked examination answers. However, it is your responsibility to arrange these meetings after the results have been released (you will receive an email telling you when the scripts are available).

It must be emphasised that most methods of giving feedback on your progress depend on your input. If you are not willing to make an effort, then you will not be able to get feedback. Adequate methods exist to give you feedback. It is your responsibility to use them.

SECTION 5 THE ACADEMIC YEAR, MODULES AND CREDITS

5.1 The Academic Year.

The academic year consists of thirty weeks divided into two semesters each of fifteen weeks. The Autumn Semester starts in late September and consists of twelve teaching weeks before Christmas and a three-week examination period after the Christmas Vacation when the modules taken during the semester are assessed. The Spring Semester starts immediately after this examination period and consists of twelve teaching weeks broken into two blocks one before and one after the Easter Vacation. The second Semester concludes with a three-week assessment period when the modules taken in this semester are assessed.

The dates of semesters for the next two years are:

Session 2011-2012

Autumn Semester: 26 September to 17 December 2011
16 January to 4 February 2012
(Christmas Vacation: 18 December to 15 January)

Spring Semester: 6 February to 31 March 2012
23 April to 9 June 2012
(Easter Vacation: 1 April to 22 April)

Session 2012-2013

Autumn Semester: 24 September to 15 December 2012
14 January to 2 February 2013

(Christmas Vacation: 16 December to 13 January)

Spring Semester: 4 February to 16 March 2013

8 April to 8 June 2013

(Easter Vacation: 17 March to 7 April)

5.2 Modular Degree Structures and Credits.

All degree courses in the University have a common modular structure (except Medical and Dental degrees). A module is a unit in a degree course that is contained within one semester and is assigned a value of 20 credits. In the Department of Animal and Plant Sciences most lecture-course units are half-modules assigned a value of 10 credits and run within either the first or the second six weeks of a semester. Tutorial modules run throughout the academic year whilst project and dissertation modules (which are assigned a value of 20 credits) extend over the whole semester. The Undergraduate Ambassador Scheme (20 credits) runs over the whole year through both semesters.

To obtain a degree you must take modules or half-modules to a value of not fewer than 120 credits in each academic year. In each semester, modules to a value of at least 40 credits must be taken. However, unless there are exceptional circumstances, you will be required to take a minimum of 50 credits in a semester to ensure that your work load is balanced.

Each degree course has a structure prescribed by University Regulations. Details of the structure of each degree course in the Department of Animal & Plant Sciences

is given in Section 16.4. In each year you will be required to take certain modules or half-modules - these are called **compulsory modules**. Other modules or half-modules you will choose from a list specific to your degree course - these are called **approved modules**. Some of our degree courses also have some **unrestricted modules** - these you can choose from anywhere in the University, subject to timetable compatibility and departmental approval.

You must pass all compulsory modules and sufficient approved modules to fulfil the requirements of your degree course before you can proceed to the next level of study.

Some modules have prerequisites. This means that you must have taken another module before you will be allowed to take the module in question. Prerequisites usually consist of module(s) at a lower level, but can be at the same level.

5.3 Years and Levels.

You will find in University Regulations that "first, second, third and fourth years" are terms no longer used. Rather the terms Level 1, Level 2, Level 3 and Level 4 are used. This reflects the fact that a modular degree structure is flexible, and it is possible for part-time students to take longer than one academic year to gain 120 credits. For full-time students a Level is identical to an academic year.

Each half-module or module is identified by a prefix that indicates the academic department providing the teaching, and a three number suffix that indicates its level and identification. APS 119 is thus a Level 1 half-module taught by the Department of Animal & Plant Sciences. BMS 307 is a Level 3 half-module taught by

the Department of Biomedical Science, and so on. The credit value will indicate whether a unit is a module (20 credits) or a half-module (10 credits).

5.4 Registration for Modules.

Between levels 1 & 2 and levels 2 & 3 you will undertake Online Module Registration during semester 2 to register for your modules for the following year.

5.5 Changing Your Module Registration.

Students may add or drop modules in the first two weeks of each semester. In addition, students may add or drop APS modules, in the first week of the second half of each semester (i.e. at the start of semester 1B and 2B). **Modules may not be dropped retrospectively.** You should see your Year Tutor if you wish to change your registration in anyway. It must be stressed that if you do not follow the correct procedure for changing your registration you will not be allowed to attend or be assessed in any module or half module for which you are not correctly registered. **It is your responsibility to check your record to ensure that you are registered for the correct modules.**

5.6 Further Information.

The full text of the General Regulations of the University and the University Examination Regulations can be found in the University Undergraduate Student Handbook or on the web. For information on the web go to the University Home Page, then click on [Current Students](#). This will give you the home page of the [Student Services Information Desk](#) where you will find a number of headings. Click on any of these headings for full information.

SECTION 6 HOW YOU CAN INFLUENCE THINGS

A two-way flow of information is essential if the Department is to run effectively. We shall do our best to ensure that you receive all the information you need, but we also need to know what you are thinking. There are several channels of communication within the Department of varying degrees of formality.

6.1 The Staff-Student Committee.

The Staff-Student Committee is an integral part of the formal management of the Department. It ensures a channel of communication between undergraduate students and the departmental committee structure. It is a joint Committee of students and academic staff. Student members are elected at the beginning of each academic year. Student members do not represent particular degree courses, but the student body as a whole in each year. The number of student representatives is not rigidly fixed; usually there are about eight to ten student members. A staff member who is a member of the Teaching Committee is appointed by the Head of the Department.

The terms of reference of the Staff-Student Committee are:

- To consider the form and timing of student evaluation of courses, together with the results from previous years (and any necessary action arising from these) at the end and beginning of each session.
- To consider any changes to courses and assessments.
- To consider issues raised by students and/or the Department relating to course content, design and delivery; assessment; tutorials; projects and dissertations; field courses; library, IT and other facilities.

- To be involved in departmental quality assurance procedures, receiving reports from (and reporting to) other relevant department committees as appropriate.

The student members of the Committee elect one of their members to attend Departmental Staff Meetings.

Matters that require further discussion within the Department are referred to the Teaching Committee or a Staff Meeting.

6.2 Student Questionnaires.

The Department of Animal & Plant Sciences has a system of student evaluation of courses by questionnaire. This operates at three levels: the module, the course year and the degree course. Towards the end of each module an evaluation questionnaire will be provided for completion. At the end of the first and second years a questionnaire on aspects of the whole year is used, and at the end of the third year a questionnaire on the entire three years of the degree course is used. Although specific questions are asked, there is also ample opportunity on the questionnaire to express your opinions on matters not covered by the questions. The results of questionnaires are presented to the Staff-Student Committee, The Teaching Committee and to a Departmental Staff Meeting. Module co-ordinators also receive the results of the questionnaire for their own module. Action taken as a result of the questionnaires is monitored by the Teaching Committee and the Head of the Department.

6.3 Tutorials.

Tutorials provide an excellent informal opportunity to give feedback on teaching. It is always helpful to hear of the good things that happen as well as the problems!

6.4 Individual Lecturers.

Individual lecturers will always be happy to hear comments from you directly, particularly if you can provide constructive criticism.

6.5 Director of Teaching/Examinations Officer

The Director of Teaching (**Dr Stephen Rolfe**) or the Examinations Officer (**Professor Richard Leegood**) will always see you to discuss any aspect of teaching or assessment.

We hope that these varied channels of communication will ensure a complete two-way flow of information and ideas.

6.6 Union Links.

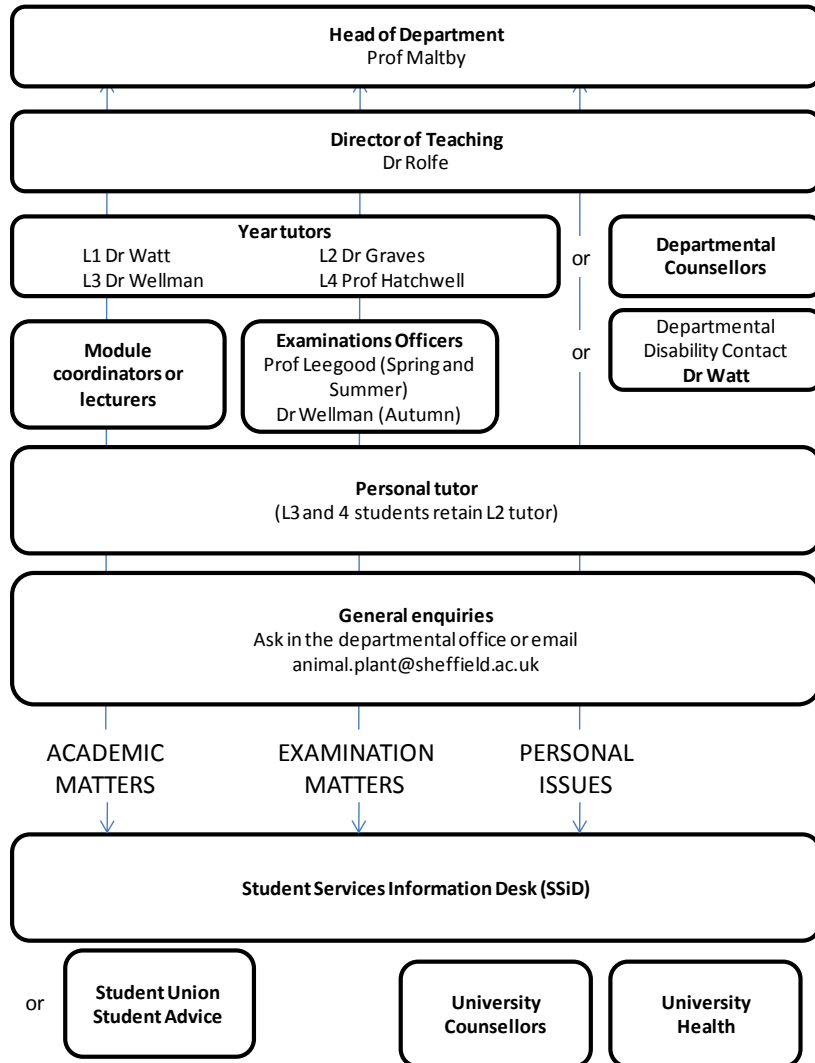
There is one student in every department different to the rest! They are a Union Link. Union Links are students hired and paid by the Students' Union to communicate issues between your department and the Union. There is one Union Link in each department.

Union Links are working behind the scenes to make sure that student representation is effective in your department. For example, Union Links support Course Reps by making sure they get a copy of the Union produced 'Course Rep Handbook' and are invited to Union-led Course Rep training sessions.

Union Links sit in your departments Staff-student Committee and relate important academic and welfare issues back to the Union and vice-versa. They make sure that you and your course mates in your department are represented at the Union.

For more information on what a Union Link is, or details on how you could be a Union Link, contact unionlinks@shef.ac.uk.

SECTION 7 SEEKING HELP



During your undergraduate course you might need help with either academic or personal matters. The Department of Animal & Plant Sciences and the University have a variety of mechanisms to help you. In addition to the section below you should also consult the Undergraduate Student Handbook which was given to you when you first registered in the University.

This diagram should help you decide who to approach for help.

It is not possible to account for all eventualities but the most important thing is to talk to someone if you are having problems. The department is here to help, but generally you need to make the first move. Please make sure that you have consulted the handbook and the APS web pages first if your question is a simple one. All general enquiries should be made via the APS Departmental Office (on D floor) or via email to animal.plant@sheffield.ac.uk.

It is better to send your email to this address as individual staff may be away at any particular time and your request can be directed to the most appropriate individual. Obviously this route is not appropriate for personal issues where you may wish to approach a specific member of staff directly.

7.1 Academic Matters.

If you have problems with the work concerned with a particular module you should speak to the member of staff concerned. Academic staff will always help with academic problems. You can also speak to your tutor, but you should remember that your tutor will not be an expert in all the areas of your degree course. If you

have problems about the organisation of teaching or assessments you should see **the relevant year tutor (See section 1.4).**

7.2 Educational Support Requirement.

Student Support and Guidance offers support to students with varying disabilities. This could include dyslexia, mental health, Crohn's disease, epilepsy and mobility impairment etc. If you feel you would benefit from this extra support you should complete the Educational Support Requirement form. You can also talk to **Dr Penny Watt** (Departmental Disability Contact) or contact the Student Services Information Desk ([SSiD](#)) or Disability and Dyslexia Support Service ([DDSS](#)) direct.

7.3 Dyslexia and other written communication difficulties

The University tries hard to ensure that exams and assessments do not discriminate against disabled and dyslexic students. The University operates a scheme where all students with written communication difficulties, such as specific learning difficulties, hearing impairments and Asperger syndrome, should be given the option to affix a sticker to each piece of their assessed work. If you would like to opt into the sticker system, please discuss this with your Disability Adviser (Dr Penny Watt) or call in to the Hillsborough Centre.

What are the stickers for? You will be provided with stickers to put on your work, to let the marker know that it was produced by a student with written communication difficulties. Your work will not be marked differently because of the sticker. The stickers alert markers to your difficulty and help them to provide you with useful feedback.

What do the stickers look like? The yellow and black stickers contain your registration number, and a link to information for markers on accessible assessment and feedback. You will be provided with a sheet of 12 stickers which you can use for your work.

What pieces of work can I put my stickers on? You can put your stickers on both coursework and exams. It is your responsibility to remember to bring stickers with you when you hand in coursework or sit an exam. Spare stickers will not be made available if you forget yours when handing in coursework or sitting exams.

Exams: You will need to fix your sticker to the front of your written script, where you have folded over the corner of the paper which contains your name. Invigilators should be able to advise you about the correct place to put the sticker if you are unsure.

Coursework: Place your stickers on the coversheet of the hard copy submitted to the departmental office.

How do I get my stickers? You will need to come to the Disability & Dyslexia Support Service at the Hillsborough Centre in the Alfred Denny Building to pick up your stickers. You do not need to make an appointment. Please make sure you bring your Ucard with you when you collect them.

Who can use my stickers? The stickers contain your Ucard number and can only be used by you. When you hand in your coursework or sit an exam, your Ucard number will be checked against the number on your sticker. Any misuse or defacing of stickers will be treated as a serious matter.

What if I do not want to use stickers? It is up to you whether you want to identify your work with a sticker. If you do not wish to take part in the sticker system, simply do not put them on your work.

What if I run out of stickers? You should contact the Disability and Dyslexia Support Service either in person or via email (disability.info@shef.ac.uk) to request more stickers.

7.4 University policy on fair assessment

The University's approach to fair assessments requires that the department

- design assessment tasks to ensure that they are as accessible as possible;
- use a range of assessment methods (e.g. coursework, exams, and presentations), wherever appropriate;
- provide feedback on assessments, to assist you in developing your academic skills and abilities;
- consider requests from students for reasonable adjustments or alternative assessments, in cases where students feel that the standard assessment method may unfairly disadvantage them.

Please contact Dr Penny Watt or the Disability and Dyslexia Support Service if you have any questions about the stickers.

7.5 Personal Matters.

If you have personal problems you can seek help in a variety of ways. First, if you just want to talk over your problems you might do this with your tutor. This will, of course, depend on how well you think you know your tutor. Other members of staff in the Department who have particular expertise in helping students with

personal problems are **Professor Lorraine Maltby, Professor Julie Scholes** and **Dr Penny Watt**. These members of staff will talk to you on an informal and confidential basis.

Second, if you feel you need professional help the University Counselling Service is available. The Counselling Service is situated on Wilkinson Street (telephone 222 4134, or internal extension 24134). You will need to make an appointment to see one of the counsellors. It is important to stress that counsellors are bound by the rules of confidentiality. Information about what has been confided in a counselling session cannot be divulged except with your freely given permission.

Third, personal problems sometimes require medical help. If this is so you should not hesitate to contact the University Health Service at 53 Gell Street (telephone 222 2100 or internal extension 22100) if you are registered with them, or your General Medical Practitioner. Again the rules of confidentiality apply and information will not be divulged without your consent.

Fourth, if you have problems concerning money, rights and welfare or housing the Students' Advice Centre in the Students' Union has a team of professional advisors who are available to help on an individual basis. The Centre also produces a variety of leaflets.

Students Services have a section which deals specifically with critical support providing help and support for students and their families affected by serious incidents. All student services support sections can be accessed via the web site at <http://www.shef.ac.uk/ssid/welfare/signposts>.

7.6 Complaints.

The University has formulated procedures for making complaints; whether about the delivery and quality of services received, or about the delivery and quality of teaching, tutorial/supervisory provision or any other matters relating to a programme of study. Please note that there are separate procedures for dealing with complaints of personal harassment. These are set out in a leaflet 'Harassment: Policy and Procedures'. There are also separate procedures for appeals against decisions of examiners or Faculty Boards (see section 12.16). Special procedures may also apply for handling other specific complaints, for example, statutory NHS complaints procedures, and Housing Services procedures relating to housing contracts.

Most difficulties can be resolved at an early stage by talking with the individual(s) most concerned with the issue at the local level.

If you believe that you have cause to make a complaint about the way a matter has been handled, or about the delivery or provision of service received from a department or service, you may wish to raise the matter with your personal tutor or **relevant year tutor**, or with the Head of the Department, **Professor Lorraine Maltby** or the Head of the Service concerned.

If you are still not satisfied with the way that the matter has been resolved, then you may seek to take it further. In that case, you should make a written complaint to the Head of the Department or Service concerned, giving clear details of the nature of the continuing problem. This written complaint will then be considered formally by the appropriate Head. After consultation as necessary, the Head of

Department or Service will provide a written response to the complaint, indicating action to be taken, where appropriate.

You can expect a written response to a formal complaint within 10 working days of it being submitted. Where this is not possible, you will be informed in writing of progress in consideration of the complaint.

You can expect to be given the reason, if the complaint is not upheld. If the problem remains unresolved to your satisfaction, or your complaint relates to the Head of Department or Service personally, then you should write formally to the Registrar and Secretary. If the complaint concerns an academic matter, the Registrar and Secretary will refer it to the Dean of the appropriate faculty: other matters will be dealt with by the Registrar and Secretary himself. A final written response will normally be given within 28 days of receipt of your formal letter of complaint.

Without breaching confidentiality, complaints and responses given to the issues involved will be monitored by the Head of the appropriate Department or Service.

Note: These procedures do not affect your legal rights in any way, nor the statutory power of the University Council to entertain grievances.

7.7 Personal Harassment.

The University has defined personal harassment as any form of behaviour which is unacceptable to the recipient and which creates an intimidating, hostile, or offensive environment for employment, study or social life. It may consist of behaviour taking place over a period of time or a single incident, but in all cases it

involves an unwanted, unwelcome or uninvited act which makes the recipient feel uncomfortable, embarrassed, unsafe or frightened.

The most common forms of harassment are sexual, which involves unwanted sexual attention, and racial, which is a form of racial discrimination. Harassment can also involve a variety of other aspects including sexual orientation, religious or political convictions, age, disability or real or suspected infection with HIV/AIDS.

7.8 What You Should Do if You Are The Victim of Personal Harassment.

Any student who suffers from harassment from any other individual will have the support of the Department of Animal & Plant Sciences and the University.

If you feel that you are suffering from harassment you should first of all adopt an informal procedure by if at all possible making it clear to the person causing offence that such behaviour is unacceptable to you. Sometimes this will immediately stop harassment because the person against whom you have a complaint may be unaware that his/her behaviour is unacceptable, or it may happen that his/her words or actions have been misinterpreted. In such cases the misinterpretation needs to be cleared up quickly. You may wish to seek help or advice from a friend or from the Students' Union. You can also always seek help and advice from **Professor Lorraine Maltby**, **Professor Julie Scholes** or **Dr Penny Watt**.

If the harassment continues or is of a more serious nature you should then institute a formal procedure by seeking a confidential interview with the Head of the Department, **Professor Lorraine Maltby**. They will listen to you in confidence and

give you advice on how to proceed in implementing the University's grievance procedure. You may wish to be accompanied at such an interview by a friend or a representative from the Students' Union.

7.9 Careers Service.

This University is nationally recognised to have one of the best Careers Services in the country. It is located at 388 Glossop Road, close to the Students' Union Building and has several advisors who will be able to discuss any aspect of your career, from helping you make a start on considering career options through to practical tips on job hunting, applications and interviews. Staff can also provide advice on improving your future job prospects through work experience and activities to develop your personal skills. Appointments with advisors can be made at the Careers Service or by telephoning 0114 222 0910. Alison Clay is one of the advisors who has a special interest in biological and environmental sciences. The Careers Service has a resource centre and comprehensive website, www.shef.ac.uk/careers/students, which provides a wealth of careers information as well as access to a popular email enquiry service. The website is often a good starting point if you want to find out more about how the Careers Service can help you, right from the start of your time at University.

In addition the Careers Service runs an extensive programme of events to bring employers onto campus, including: presentations by employers about their organisation; seminars and workshops run by employers to help students find out more about occupations and jobs on offer; plus recruitment and information fairs. Full details of these are publicised to student through Careers Noticeboards in the

department, regular e-mails, via the Careers Service and departmental websites, and within lectures. The Careers Service website also has its online 'myVacancies' service where you can find out about current and forthcoming vacancies for graduate jobs and work experience. For those wishing to explore opportunities in another country the website has a comprehensive section on '[myInternational career](#)'.

Within the APS department careers information seminars are presented to 1st, 2nd, 3rd and 4th year students in conjunction with the Careers Service. The department maintains a careers noticeboard on C-floor of the Alfred Denny building that displays current Careers Service notices. **The Department Careers Officer** is responsible for departmental liaison with the Careers Service and can be consulted for advice. Advice on careers in research can be sought from your tutor.

Please consult your University Undergraduate Student Handbook for further information or go directly to www.shef.ac.uk/careers/students

7.10 Nightline.

Nightline is the University of Sheffield's confidential listening and information telephone service. It is run by trained student volunteers, and operates from 8pm until 8am every night during term time. It offers students everything from the phone number of a twenty-four hour taxi company, to exam dates, times and locations, and information about every issue that can be encountered within student life. It provides a vital support network for all students, so whatever you need to say, Nightline is listening, and our service can be called free from phones in

Halls of Residence. If you think you would like to volunteer for Nightline, contact nightline@shef.ac.uk for more information.

7.11 Developing your writing skills.

During the academic year 2011-2012 the Department of Animal and Plant Sciences will be hosting a writer in residence, **Fiona Shaw** whose role is to help members of the Department (undergraduates through to staff) develop and enhance their writing skills.

Fiona Shaw is available during term-time to advise, on a one-to-one basis, students and staff in the Plant and Animal Sciences Department on any aspects of their writing, whether it be essays, reports, dissertations or other written work.

She offers constructive tutorials of up to an hour about any aspect of your writing that you want to discuss.

Fiona can be found in Room C202A. This is on C Floor of the Alfred Denny Building and will be available on Wednesdays and Thursdays.

To book an appointment: Email: f.shaw@sheffield.ac.uk or telephone: 0114 2220133. The sessions are confidential, independent of the university, and designed to help. All students are welcome. Fiona's residency is supported by the Royal Literary Fund.

Essay Writing Guide for Undergraduates: The Royal Literary Fund's online guide: www.rlf.org.uk/fellowshipscheme/writing.

SECTION 8 HEALTH AND SAFETY

The Departmental Code of Practice for Health and Safety outlines the procedures appropriate to the Department of Animal & Plant Sciences. In order to ensure a safe environment for all who work in the Department, please familiarise yourself with this Code. Copies are available from the Departmental Office, if you have not already received one. The Departmental Safety Officer is **Professor Richard Leegood**.

8.1 The Individual Role.

By law, everyone has a safety responsibility. It is important that all persons appreciate the extent of this responsibility. Every person has the responsibility for the health and safety of himself/herself and of all other persons who may be affected by his/her acts or omissions.

8.2 Laboratories.

All laboratories are potentially dangerous. It is essential that you follow the safety instructions given to you. You must always wear a laboratory coat and other protective clothing where necessary. You will be refused entry to any teaching laboratory if you are not wearing a laboratory coat. Eating and drinking in laboratory areas is strictly forbidden at all times.

8.3 Fire Drills and Evacuation Procedures.

Fire drills are held throughout the University during the first part of the first semester, so that you may become aware of the evacuation procedures in the

event of an emergency. The fire alarm consists of a distinctive high-pitched sound. Please note that the fire alarms are tested at 11.00am on every Tuesday; but on these occasions the alarm sounds intermittently and no action is required, if the alarm is less than 1 minute, this will be a test, but if the alarm lasts longer then this is a real Fire Alarm, and the procedure below must be followed.

A CONTINUOUS SOUNDING ALARM WARNS YOU TO LEAVE THE BUILDING IMMEDIATELY

EVACUATE THE BUILDING BY THE NEAREST EXIT.

GET WELL AWAY FROM THE BUILDING, WINDOWS MAY BLOW OUT CAUSING INJURY TO ANYONE IN THE VICINITY.

DO NOT OBSTRUCT ENTRANCES.

ASSEMBLE ON THE CONCOURSE.

Anyone discovering a fire must:

- call the Fire Service by telephoning **4444** on a University internal telephone.
- warn others by shouting "Fire".
- only if it is safe to do so, should the fire be tackled with an appropriate extinguisher.
- if the fire is to be left, all doors must be closed to prevent its spread.

8.4 Accident Procedures.

In the event of illness or injury where medical attention is required arrangements should be made for the injured person to be sent directly to a hospital Accident and

Emergency Department. This can be done by dialling **4444** on any internal telephone (24 hour service). Do **not** dial 999. Where possible, a qualified First Aider should be called to take charge of the situation and give appropriate treatment until the person receives medical help. A list of qualified First Aiders can be found in each First Aid Box in the Teaching Laboratories.

The Northern General Hospital Accident and Emergency Department is open 24 hours a day, seven days a week.

Minor injuries can be treated in the Royal Hallamshire Hospital between 9.00am and 5.00pm.

8.5 First Aid.

For minor injuries where first aid is all that is required, First Aid Boxes are situated in Teaching Laboratories and appointed first aiders can be contacted for assistance. These people are **Hazel Basford** (ex. 20077), **Maggi Killion** (ex. 20045) and **Linda Dulley** (ex. 20056).

8.6 Working Hours.

The normal working hours of the Department are Monday-Friday 8.00 am - 6.00 pm. The doors to the building are locked at other times. Work outside normal working hours is not permitted except in EXCEPTIONAL circumstances and by prior arrangement with an academic staff supervisor and the agreement of the Head of Department. The supervisor must also be present in the area when out of hours work is being carried out.

8.7 Smoking

THE UNIVERSITY IS A NO SMOKING AREA. SMOKING IS PROHIBITED IN ALL UNIVERSITY BUILDINGS.

SECTION 9 GOOD LABORATORY PRACTICE FOR UNDERGRADUATE STUDENTS

The following instructions apply to all practicals and project work, including field courses.

9.1 General Conduct in Laboratories.

- No smoking, eating or drinking.
- Laboratory coats are to be worn at all times in the laboratory but must **not** be worn in common rooms etc. where food and drink are consumed.
- Avoid cluttering up laboratories (especially research labs and any benches.) with coats and bags.
- Use fume cupboards or personal protective equipment (gloves, goggles etc.) when advised to do so by a supervisor, or as specified on the COSHH (Control of Substances Hazardous to Health) assessment which will be provided if the work involves the use of hazardous chemicals.
- If unsure how to use unfamiliar equipment ask your supervisor or a technician; observe notices carrying instructions or warnings.
- Project students should plan their work so that it can be carried out during normal working hours. Avoid working alone.
- Keep your work within the bench area allotted. Do not leave equipment such as pH meters, laminar flow cabinets, fume cupboards etc. in an untidy state: **CLEAN ALL EQUIPMENT - INCLUDING BALANCES - IMMEDIATELY AFTER USE.**
- Remember: you are responsible for clearing up after yourself.

9.2 Use of Apparatus.

- No mouth pipetting: use filling devices (rubber bulbs, Pi-pumps) or transfer pipettes (e.g. Gilson, Oxford).
- Empty and rinse glassware as soon as possible after use and remove to the designated location for collection for washing.

- Pay particular attention to removal of corrosive or toxic chemicals, plant material, soil, agar etc. (see "Disposal" below).
- Make sure all chemicals and media are clearly and unambiguously labelled. COSHH pictograms should be used where appropriate (refer to COSHH assessment).
- Do not attempt to modify or repair any electrical items. Do not use electrical items near water (e.g. in greenhouses or field sites) unless these have been explicitly approved for use by your supervisor.

9.3 Spillages.

Clean up spillages immediately using the appropriate procedure e.g.

- liquids: mop with cloth or paper towel: do not try to suck them up using pipettes etc.
- strong acids and alkalis: contact a member of the Technical staff urgently.
- solid chemicals: wipe with damp cloth or paper towel. (Balance pans can in most cases be removed for cleaning).

Do not deal with spills of dusts or other solid chemicals by brushing or blowing: this increases the risk from hazardous materials.

N.B. Do not put paper towels used for cleaning up chemical spillages into waste paper bins where cleaning staff could come into contact with harmful substances: use the black waste sacks provided.

9.4 Disposal.

Please discuss any Waste Disposal (other than 'domestic' waste) with a member of the technical staff.

SECTION 10 LIBRARY FACILITIES

The Library is here to support you in your studies. There is a wealth of material available; over 1,400,000 printed volumes and an extensive range of electronic resources including subject databases, ebooks and ejournals. All our e-resources are accessible through MUSE from anywhere via the internet. For a general introduction to using the library go along to the drop-in sessions running in the Information Commons throughout Induction Week. See the library web pages <http://www.shef.ac.uk/library> in September for details.

The University of Sheffield Library has four sites: the Information Commons which contains most of the undergraduate materials in all subject areas, Western Bank Library (adjacent to the Arts Tower), which contains biology, physics, chemistry and mathematics research books and journals, St George's Library (Mappin Street), which contains materials on engineering and computer science and the Health Sciences Libraries which contain the clinical collections (Royal Hallamshire Hospital and the Northern General Hospital).

10.1 Finding information about the Library services.

The best way to get up to date information about the Library is by using the library web pages <http://www.shef.ac.uk/library>. These cover everything you need to know including opening hours, how to borrow material, details of electronic resources and a link to the library catalogue. You can also pick up a printed guide from any of the library sites.

10.2 Access and general rules.

To access the University Library you must have your UCARD with you. For details of opening hours at all sites go to:

<http://www.shef.ac.uk/library/libsites/opengen.html>

Please remember that Library materials are expensive, and resources are limited. Books and journals are sometimes in heavy demand, but many of the difficulties can be reduced if everyone behaves in a responsible and considerate way to maximise access. Try to keep books out just for the time you need them, don't leave them sitting in a corner doing nothing. There should be reference copies of most of your key texts in the Information Commons which you can consult if all the loanable copies have already been taken out. Please replace books you use in the library on the holding areas at the end of the shelves so staff can re-shelve them quickly and easily.

MUSE, the University of Sheffield portal, gives you personalised access to the University's online resources. From the Library tab in MUSE, you can:

- find and request the books you need
- renew your library loans and pay any charges you may have incurred
- see your reading lists
- access electronic resources, such as ejournals, ebooks, subject databases
- search Google Scholar
- use the Science tutorials in the Information Skills Resource to learn how to search for information effectively, and use references correctly

10.3 Finding books and journals.

Information about books and journals can be found in the library catalogue, accessible from any computer with internet access. The catalogue is straightforward to use and will tell you whether material is held by the Library, where to find it (the location and shelfmark) and whether or not it is already on loan. If it is already on loan you can request it and you'll be emailed when it's ready for collection.

Books and journals may be searched for separately. When you reach the screen where you type in the terms you want to look for (author name, title etc) you can specify whether to search in the *Full catalogue* (for books and journals), or just in *Journals*. Note that journal searches search on journal titles, but not individual articles. If you are researching a particular subject area then you should use specialised databases such as Web of Knowledge or Scopus. All databases are accessible from the *Library* tab in MUSE. Many journals are now available electronically but not all are, and not for all date ranges. Please use the 'Show Library Holdings' option in the Library catalogue to check the format of the journal you are interested in.

All books are arranged in groups by the subject number (classmark), and then alphabetically by the initial of the author's surname. The ends of shelves are labelled with the subject numbers and there are floor plans around the Library showing where different subject numbers are shelved.

Please bear in mind that there can be a lot of books with the same class or subject number, and the alphabetical position (indicated by the letters after the subject number on the spine of the book) is important.

If you have problems locating material then please ask library staff on the welcome desk at the entrance turnstile or at the information desk in the reading room.

10.4 'MyLibrary Account'.

From the *Library* tab in MUSE you can see details of all the books you have out on loan under myLibrary Account, when they are due back and can renew each item as many times as you need to as long as it has not been requested by another user..

10.5 Borrowing.

You need your UCARD and Library PIN in order to borrow from the library. You can find your Library PIN from myLibrary Account in MUSE, or simply by asking a member of staff. There are self-issue and self-return machines in all the library sites. There are two categories of books:

- STANDARD LOAN: 1 week for full-time taught students; 2 weeks for part-time and distance learning students.
- REFERENCE: use in library only. These books have a GREEN band on the spine.

If a book you take out becomes reserved, you will be able to keep it until the due date but will be unable to renew it. When a book is heavily reserved, the loan period will reduce to two days for all borrowers.

Undergraduates may borrow up to 15 books at any one time. Journals (with some exceptions) are not available for loan. Materials in the library are security marked and must be issued to you before they are taken through the exit gate.

Fines are charged on all overdue material at a rate of £1 a day per overdue item. Please keep checking your library account to renew books and avoid unnecessary charges.

Journals.

Most journals are now available electronically, use the library catalogue to look for specific titles. Access all electronic resources by logging onto MUSE and using the links provided under the Library tab. This method takes care of all the necessary authorizations and passwords and will work on or off campus. Further information is available from the electronic resources library web pages <http://www.shef.ac.uk/library/intro>.

The print collection of current biological journals is held in the Western Bank Library, shelved on Stack 4. Access is from the reading room (below the gallery steps on the right hand side as you enter the reading room) or just through the library turnstile (go straight past the stairs and turn right). The journals are shelved by class (subject) number as with books, and in alphabetical order within subjects. The alphabetic start and end points for each shelf are indicated along with the subject number. The main biological holdings are in three groups with subject numbers 570.5 (general), 580.5 (botany), 590.5 (zoology). Also of interest are the general science periodicals (e.g. Science, Nature) which are at 505. If you have any

difficulties in finding materials, please contact library staff who will be happy to help you.

10.6 Requests.

Requests for items out on loan can be made online via the Library catalogue. Requests can be made for material not on loan but please be aware that these take some time to process and it will always be quicker for you to fetch the material yourself (unless the item is in a closed store). You will receive an email when the material becomes available, you then need to go to the library to collect the item as soon as possible. Before requesting a book, always check on the catalogue to see if there is an e-version available that you could access straight away.

If a book you have already borrowed is requested by another reader, you will no longer be able to renew it and you must return it by the due date

10.7 Document Supply.

For specialised reading and research, you may find that the material you require is not in the library. If it is important to see the material then it can be obtained via the document supply service. This is usually only available for postgraduate students and staff. See <http://www.shef.ac.uk/library/services/ilstaffpgres.html> for more information on this service. Before submitting your requests please discuss with your supervisor as each request costs the department about £9.

10.8 Photocopying, microfiche readers etc.

Photocopiers are available in all the library sites. Please ensure that you comply with copyright law, there are guides on the machines. All self-service photocopiers operate using the Prepay Printing System. All members of the University are issued with a Pre-pay Account on their U-card when they register. This account is used to pay for printing and photocopying. All accounts are initially credited with £2 by the university; after that users must credit their accounts using the Value Loaders located in all libraries and IT centres.

Go to <http://www.sheffield.ac.uk/cics/printing> for more details.

There are various microfiche and microfilm readers located on Stack 4 in the Wolfson Suite in the Western Bank Library. Please contact library staff for further help and advice.

10.9 Older and archived materials.

Not all library materials are on the main shelves. The Library catalogue provides up-to-date information on the location of material, and if you're having trouble finding something please request it or ask staff for help.

10.10 Further help.

The library has produced a range of materials to help you to make best use of the library and the resources it provides. A variety of guides have been produced and are available online at the following web page <http://www.shef.ac.uk/library/services/subject.html>. There are also a series of online tutorials on a wide range of subjects which have developed to help you

improve your information skills. For more details please go to the following web page:

<http://www.librarydevelopment.group.shef.ac.uk/>.

Staff are on hand at each site to offer advice and assistance. If you have problems, for example, finding books in the Library, accessing electronic resources, or need help with your Library account please don't hesitate to ask any member of staff.

The following librarians can offer subject-specific guidance:

Carmen O'Dell is the Faculty Librarian for Science - email c.odell@sheffield.ac.uk

Lex Rigby is the Liaison Librarian for Science – email lex.rigby@sheffield.ac.uk

The Library web pages at www.sheffield.ac.uk/library offer extensive information about making the best use of resources and services.

Keep up to date with new services and resources by bookmarking the Science and Engineering blog <http://www.librarydevelopment.group.shef.ac.uk/blogs/scieng/> or follow library news via Twitter @UniSheffieldLib, or via RSS Feeds <http://www.shef.ac.uk/library/services/libnewsfeeds.html>.

SECTION 11 INFORMATION SERVICES

11.1 Information Commons

www.sheffield.ac.uk/infocommons

E: infocommons@sheffield.ac.uk

The Information Commons is open 24 hours a day, 7 days a week but is not staffed continuously.

Staffing times can be found at:

www.sheffield.ac.uk/library/libsites/icopen.html

The Information Commons, run jointly by CICS and the Library, is a state of the art building which houses 100,000 books, over 500 PC's and more than 1300 study spaces for individual, group and classroom learning.

Flexispace on Level 4 can be configured in a variety of different layouts and has a large plasma screen and two copy cams available for student use. There are silent study spaces on levels 2, 3 and 5, and group rooms and some PCs can be booked in advance by students.

During service hours, CiCS and Library Staff can offer advice and support. Outside of these hours, students can still access computing and library facilities via self-service equipment and web-based services. You can only get into the building by swiping your UCard at the turnstile. During self-service hours you need a UCard to open the external doors. You also need a UCard to use many of the services available within the Information Commons.

The entire building is wireless-enabled so that laptop users can connect to the network anywhere. Kiosk computers located in the café area and around the building allow students quick access through MUSE to services such as Star, the library catalogue and electronic resources.

Printing and photocopying facilities are available on every floor, located in the Business Units, along with value loaders where printing and photocopying accounts can be credited. Self-service book issue machines are located in the business units on levels 1, 2 and 4, and scanners can be found on level 1.

11.2 Computing Facilities

<http://www.shef.ac.uk/cics/>

All students have access to a wide range of computing facilities. Corporate Information and Computing Services (CiCS) provides secure computers in rooms across campus, with a large choice of software including comprehensive internet access, email, word processing, spreadsheets, database management, CAD, statistical and other specialist software.

All computers are connected to the campus network, which is maintained by CiCS and provides access to available software and services, and to the internet.

11.3 Computer Rooms

- As well as the Information Commons, CiCS provides rooms of computers for students to use, as well as low cost, high quality laser printing and scanners. Mappin ME03/04
- Bartolome House
- Hicks Building, Floor G
- Perak Laboratories
- Stephenson Hall IT Centre
- All Libraries

Each cluster of rooms contains a laser printer, and most contain phones to contact the helpdesk.

The most convenient computers for you to use are those situated in the IT Centre in the Perak Laboratories building (A-floor) or room B56 of the Alfred Denny Building. The Perak IT Centre is open between 8.30am and 5.45pm (Mondays to Fridays). Computers in this location are subject to block booking for classes, so please check if you wish to use a computer at a particular time.

There is a full list of rooms available on the CiCS website. You can use the web or on an internet enabled mobile phone (**mobile.shf.ac.uk**) to locate free computers.

11.4 Computer Account and Email Address

You will be provided with a computer account that gives you secure access to the computing facilities and the campus network,

You will also receive a University of Sheffield email address, which you must use for University Business. **You must check your University email regularly.** University mail will only be sent to this address.

11.5 Connecting your own Computer

You can connect your own computer to the internet from most rooms in University Residences.

You can also connect your laptop and most mobile devices, including smartphones and iPads, to the wireless network on campus in the Information Commons, student computer rooms and many other rooms around campus including lecture theatres and cafes. For wireless network locations, view a full list at www.sheffield.ac.uk/cics/wireless.

11.6 MUSE: The University Portal

MUSE gives your personal access to many resources, including your student record, course information, timetables, teaching materials through MOLE, the University Library catalogue and electronic journals.

It also provides remote access to our internet services and online resources. Wherever you are in the world, if you can access the internet through a modern web browser, you can easily and securely login to MUSE to access your email, your files, and our web based resources.

MUSE also carries important news, announcements and University information. It has a groups facility for collaboration and teamwork.

For information on MUSE, see www.sheffield.ac.uk/cics/muse

11.7 Information and Help

At the Information Commons staff are available to assist you with any computing problems. At the start of term, these staff provide introductory courses and demonstrations on various aspects of using the University's facilities.

You can contact the CiCS helpdesk, which will provide answers to any computer-related queries. You can call the helpdesk from a University phone on **21111**. Such phones are provided in many unstaffed computer rooms. From outside the University, you can reach the Helpdesk by calling **0114 222 1111**.

You can also email the Helpdesk (helpdesk@sheffield.ac.uk), or visit the Computing Centre on Hounsfield Road (Monday-Friday, 9am-5pm).

In addition to the helpdesk, the Computing Centre assists with Computer Facilities, and provides detailed instructions in PDF format.

www.sheffield.ac.uk/cics/documentation.

11.8 Documentation and IT Code of Practice

There is a comprehensive guide to the University's policies about computing facilities and the IT Code of Practice on www.sheffield.ac.uk/cics/policies.

It is your responsibility to become familiar with the contents of the regulations and guidelines.

If you wish to complain about bad behaviour or the misuse of facilities, contact the Director of Corporate Information and Computing Services (c.sexton@sheffield.ac.uk).

SECTION 12 EXAMINATIONS AND DEGREE CLASSIFICATIONS

12.1 The Form and Timing of Examinations.

All modules are examined at the end of the semester in which they are taught. The University Regulations define "examination" as a process of assessment (whether by written examination papers, written or practical assignments, continuous assessment of coursework, or other means) which enables the Examiners to return a grade. You will find that different methods of examination may be used in different modules or half-modules.

At levels 1-3 there will be a meeting in late October/early November with the Examination Officer to explain examinations matters in more detail and which you can ask questions. Attendance at this meeting is compulsory.

12.2 Dyslexia

The University has gradually been phasing in a sticker scheme (see section 7.3 for more information). If you are dyslexic or have other written communication difficulties then you can opt to attach a sticker to your work indicating this. The stickers alert markers to your difficulty and help them to provide you with useful feedback. The same criteria as described above will still be applied.

12.3 Multiple-Choice Examinations (Level 1 and level 2).

At Level 1 in the School of Biological Sciences lecture-course modules are examined by means of a multiple-choice examination paper. Multiple choice questions may also form a component of level 2 examinations. Multiple-choice examinations test

both knowledge and understanding. These examinations will be computer marked and the format of the top part of the computer sheet used for these examinations is shown below.

UNIVERSITY OF SHEFFIELD

SCHOOL OF BIOLOGICAL SCIENCES

| | |
|------------------------------------|------|
| Name | |
| Examination Press Number and Title | Date |

- This form will be read by a machine. ● Please use an HB pencil.
- Mark like this
- If you make a mistake erase it completely.
- Please do NOT mark with ticks, crosses or circles.
- Do not forget to enter your name, the Examination Press Number and Title, and your Candidate Number.

ANSWER SHEET

CANDIDATE NUMBER

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

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c1 c1 c1 c1 c1 c1 c1 c1 c1 c1

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c4 c4 c4 c4 c4 c4 c4 c4 c4 c4

c5 c5 c5 c5 c5 c5 c5 c5 c5 c5

c6 c6 c6 c6 c6 c6 c6 c6 c6 c6

c7 c7 c7 c7 c7 c7 c7 c7 c7 c7

c8 c8 c8 c8 c8 c8 c8 c8 c8 c8

c9 c9 c9 c9 c9 c9 c9 c9 c9 c9

At the top of the sheet you must enter your name, the examination press number and title (for example, APS119 Comparative Physiology) and the date. On the right hand side of the sheet you will enter your candidate number in the box. Your candidate number is the **Registration number** on your U-card (not the U-card number). Below the box is a grid and you will also enter your registration number in the grid by marking the appropriate numbers in pencil. Make sure that you enter 9 digits i.e. include leading zeroes in your candidate number.

You will be required to answer the questions by filling in the appropriate box on the computer sheet. There will always be a single correct answer to a question, so only

one box should be filled in for each question. If you fill in more than one box your answer will be counted as 'Don't know'. You must use an HB pencil that you should bring to each examination. If you make any mark on the paper other than the box you intend to fill in, the computer will not read it. Therefore, you are strongly advised to note your answers on the question paper, and only when you are sure of the answers that you want to give should you then carefully fill in the boxes on the computer sheet.

A guessing correction will be applied during the marking of the examination. One third of a mark will be deducted for each incorrect answer. Thus, if you guess all the answers and got 25% of them right (as you could well do by chance) the correction procedure would deduct one third of a mark for each of the 75% incorrect answers and your net score would be zero. If you do not know the answer to a question you do not have to guess. If you fill in box E this will be marked as "do not know" and no guessing correction will be applied. The effect of filling in box E will thus be neutral.

Self Assessment Tests at level 1.

Many Level 1 APS modules employ an online multiple-choice self-assessment test which is available at the end of the period in which the module is taught. If you are registered for a module, you are required to take this self assessment test. It will provide you with examples of the multiple choice questions used in the main examination so that you are familiar with the format of the question paper.

12.4 Coursework and examinations at levels 2-4

All examination answers and practical class and field course reports are marked by the staff who provide the teaching. All marking is moderated by a second member of staff who checks a sample of the work to ensure that the marking is at an appropriate level. The criteria used for assessment differ between levels and also between coursework and examinations and are provided to you. If a module has multiple components, the weightings of each will be provided to you.

If you fail to follow the instructions on in an examination, you may receive a score of 0. For example, if an examination requires you to answer two questions, one from section A and section B and you answer two questions from the same section, only the first answer that you give will be marked, the second answer will be scored as 0. If you are required to answer only one question and you provide two answers, only the first answer will be marked (i.e. not the best answer).

12.5 Practical Work Reports.

You will be given instructions on how to write up practical reports and the deadlines for handing in work in the practical booklets that you will receive.

12.6 Award of Credits.

Candidates are required to complete units to a total value of 120 credits at levels 1, 2, 3 and (where applicable) 4. A distinction is made between completing a unit and passing it. A completed unit is one for which a candidate has obtained

- a) a Pass grade (or Pass outcome)
- b) a Fail grade

or

c) where formal exemption as a result of previous study has been approved.

On the other hand, where for example, work is not submitted at all with no good reason or where credit is refused/denied (e.g. by a Discipline Committee on grounds of use of unfair means) then the unit/module may not be awarded a grade and would therefore clearly not be classed as completed and progression/award would not be possible. This will appear as NC (Not Completed) on your University record.

To pass a module or half-module you must achieve at least a pass grade, that is at least grade 40, in the examination. If you do not achieve at least a pass grade you will not be awarded the credits for that module or half-module and this might affect your academic progress (see 12.13).

12.7 Examination Results

Examination results are available **only on MUSE**. You should check the [SSID](#) web pages for information about release dates. Students should receive an email in March (following Autumn Exams) and again in the summer – giving details of release dates for each Faculty. If you need to re-take any examinations, you need to make sure that you have the correct information. You will need to go to <http://www.sheffield.ac.uk/ssid/exams/reassessment.html> and follow the instructions given there.

IT IS YOUR RESPONSIBILITY TO OBTAIN THE INFORMATION YOU NEED.

Examinations results will also be posted in the department after the external examiners visit in March and June. These results will be listed by anonymous candidate number and will be subject to ratification by the Faculty of Pure Science.

If you do not wish your examination results to be posted in this way, please contact the APS Departmental Office. Please note that staff are not allowed to release results via e-mail or telephone.

12.8 Re-sit Examinations.

Re-sit examinations (or examinations for students who were Not Assessed (NA) or Not Completed (NC) in the Autumn/Spring examination period) for level 1 and level 2 students will take place in the Supplementary Examination period (see timetable in the front of this booklet). However, there is no formal re-sit examination period for level 3 or level 4. If you are required to re-take an examination in order to pass your BSc or MBIoSci degree this may only be possible in January or May in the next academic year – please contact **Professor Leegood**.

12.9 Grades Awarded in Re-sit Examinations.

At levels 2, 3 and 4 if you re-sit a failed examination and pass you will be awarded a bare pass mark, that is grade 40, for that examination. However, this cap is not applied to level 1 examinations.

12.10 Illness and Examinations.

If you are prevented by illness from taking an examination in January then you will be able to take the examination during May-June period as a first attempt. If you

are prevented from taking an examination in May-June by illness you will be able to take the examination in August as a first attempt. Your University record will show NA (Not Assessed) for these examinations until you have taken them. Evidence of illness will be taken into account when determining degree classifications at the end of the third year. In all cases where illness is a factor, full medical evidence will be required.

If you are ill before, or during, an examination you should ensure that **Professor Leegood** or the year tutor (see section 1.1) is aware of this and you should provide a medical certificate as soon as possible. If you claim to have been ill during an examination a substantial time after the event, it will not be possible to take this into account. If in doubt email animal.plant@sheffield.ac.uk.

If you are going to be absent from the university for any length of time due to illness or other circumstances you **MUST** complete a special circumstances form. This needs to be signed by either your Personal Tutor for absences under 7 days or your Year Tutor for absences over 7 days or repeated absence and then handed into the APS Departmental Office. If you absent due to illness for more than 1 week then a doctor's note/medical certificate must be provided along with the form. Special circumstances form can be obtained either from the APS office or SSID.

If you fail to turn up for an examination your record will show Not Completed (NC). You may not proceed to the next level of study with NC on your record.

12.11 Cheating, Plagiarism and Collusion.

During invigilated examinations a candidate shall not use or attempt to use any unfair means and shall not communicate with or attempt to communicate with any

other candidates. Answers must be the candidate's own work. Where other material is quoted, the candidate shall state the source(s) from which it is derived. A candidate shall not use any answer book, writing paper or blotting paper other than that supplied in the examination hall. All unauthorised material (such as revision notes, books and data tables) and electronic devices (such as electronic dictionaries, mobile phones, radios and personal audio equipment) shall be left outside the examination hall or surrendered to an invigilator before entering the hall. Any material required for any particular examination will be provided in the hall. (If candidates are permitted to introduce books, notes or other material into an examination hall, they will be informed by the Department, and the nature and extent of the authorised material will be stated on the question paper.)

When preparing essays, projects or other work, you will read widely and become familiar with the work of others. You should ensure that the materials you prepare for submission would be accepted as your own original work. A lecturer or tutor who is assessing your work is interested in your understanding of an idea and you should use your own words to demonstrate your understanding.

The selective quoting of material from books and articles is permissible, but the material must always be attributed to its sources by means of quotation marks. In assessed essays, a footnote or brackets naming the author and the title of the text plus the dates of publication would be required, as would a bibliography that provides full references of all the material consulted or used. In scientific essays, the use of extended quotations is unusual. When referring to the scientific literature you should read the article, make sure that you understand it, and then write in your own words. You should reference the source of the work at the end of

the section using standard scientific notation e.g. (Smith & Jones, 1997) with a complete reference provided in the reference section at the end of the document.

The basic principle underlying the preparation of any piece of academic work is that **the work submitted must be your own original work**. Plagiarism and collusion are not allowed because they go against this principle. Please note that the rules about plagiarism and collusion apply to all assessed and non-assessed work, including essays, experimental results and computer code. Cutting and pasting from web sites would also be considered unacceptable. The departmental policy on plagiarism can be found at <http://www.shef.ac.uk/aps/currentug/infoall.html>. All coursework submitted outside of examination conditions will require a departmental coversheet which requires you to sign that you have read the document. In addition, coursework will be submitted to the TurnItIn system. Failure to submit coursework to the TurnItIn system will result in a score of 0 being awarded.

Plagiarism is passing off others' work as your own, whether intentionally or unintentionally, to your benefit. The work can include ideas, compositions, designs, images, computer code, and, of course, words. This list is not exhaustive. The benefit accrued could be, for example, an examination grade or the award of a research degree.

An online tutorial has been provided at

https://librarydevelopment.group.shef.ac.uk/shef-only/info_skills/Plagiarism/contents.html

to help you understand plagiarism and how to avoid it.

- If a student submits a piece of work produced by others, or copied from another source, this is **plagiarism**.
- If a student produces a piece of work which includes sections taken from other authors without attribution, this is **plagiarism**. The length of the copied section is not relevant, since any act of plagiarism offends against the general principle set out above. When copying sections from other authors it is not sufficient simply to list the source in the bibliography.
- The selective quoting of material from books and articles is permissible, but the material must always be attributed to its sources, both within the text and within a bibliography. However, in general, extensive use would not be acceptable, even if acknowledged.
- If a student paraphrases from another source without the appropriate attribution, this is **plagiarism**. Paraphrasing should use a student's own words to demonstrate an understanding and accurately convey the meaning of the original work, and should not merely reorder or change a few words or phrases of the existing text.
- If a student copies from or resubmits his or her own previous work for another assignment, this is **self-plagiarism**, and is not acceptable.
- **Collusion** is a form of plagiarism where two or more people work together to produce a piece of work all or part of which is then submitted by each of them as their own individual work.
- If a student gets someone else to compose the whole or part of any piece of work, this is **collusion**.

- If a student copies the whole or part of someone else's piece of work with the knowledge and consent of the latter, then this is **collusion**.
- If a student allows another student to copy material, knowing that it will subsequently be presented as that student's own work, then this is **collusion**.
- If two or more students work on an assignment together, produce an agreed piece of work and then copy it up for individual submission, then this is **collusion**. When producing a piece of work arising out of groupwork, students should seek the advice of the tutor setting the assigned work regarding the acceptable limits of collaboration.

Both plagiarism and collusion are strictly forbidden. Students are warned that the piece of work affected may be given a grade of zero, which in some cases will entail failure in the examination for the relevant unit or research degree. The student may also be referred to the Discipline Committee.

You should follow any guidance on the preparation of material given by the member of staff setting the assignment. If in doubt, consult with them. There is unlikely to be any objection to you discussing the subject of an essay or project with fellow students in general terms, or to quoting from various sources in the work submitted. However, if you have any problems with an assignment you should always consult your tutor, who will give general advice and help.

There may be instances when collusion is required! For example, where you work as a member of a team. It will be made obvious when collusion is required and when it is forbidden.

12.12 Anonymous Marking.

To avoid the possibility of any bias in marking all examination answers are anonymously marked. You are thus required to enter your registration number on examination answers. Your university registration number can be found on your U-Card. You should take your U-Card to all examinations to ensure that you enter the registration number on **your examination answers**.

In some cases anonymity is difficult to achieve (e.g. Level 3 Project Reports). You should still only use your Registration number on the report. An independent second marker will ensure that there is no bias in the assessment of Project Reports.

12.13 Progression

From level 1 to level 2

Students must pass 120 credits to proceed to level 2. The Examiners may, at their discretion, allow a student who has been awarded at least 100 credits to proceed to level 2 providing:

- all core modules have been passed
- a score of at least 30 has been achieved in failed module(s).

Permission to proceed in these circumstances is not automatic, and in reaching their decision the Examiners will take into account:

- whether satisfactory progress has been made across Level 1 as a whole;

- whether the student's performance in those modules which have been passed provides compensation for the failed module(s);
- whether the student has made a demonstrable effort to succeed in the failed module(s), evidenced by adequate attendance and participation and completion of the relevant assessed work and examinations.

From level 2 to level 3

If you are awarded 120 credits in the second year examinations you will proceed into the third year. You may also be able to proceed into the third year if you are awarded at least 100 credits, providing you have passed all compulsory modules. This means that you might be able to fail one or two half-modules in second year and still proceed into the third year, but this will have consequences for your degree classification (see below). You will need to seek advice concerning your situation if you are in this position. It will always be advantageous for you to re-sit the examinations in the modules or half-modules you have failed. If you are awarded fewer than 100 credits you will be required to re-take the examinations in the failed modules or half-modules and obtain sufficient credits to satisfy the requirements stated above. Failure in a module or half-module that is a pre-requisite for a third year core module or half-module will also mean that you must retake and pass the examination before you may proceed to Level 3. **Successful completion of APS222, compulsory and Practical modules is a pre-requisite for progression to Level 3.**

If you are registered for an MBiolSci degree you must achieve a minimum mean grade of 60 at Level 2 to remain registered. If you fail to achieve this grade you will be required to change study to a BSc degree at this point.

From level 3 to level 4 (for students registered on MBiolSci)

If you are awarded 120 credits in the third year examinations, have an overall weighted mean grade of 60 or above at Level 2, together with a minimum grade of 65 in the Level 3 project (APS330), you will be able to proceed to Level 4 of the MBiolSci degree.

You may be able to proceed to Level 4 with 100 credits or more providing the other criteria for progression are fulfilled. You will need to seek advice concerning your situation if you are in this position. If you are awarded fewer than 100 credits you will be required to re-take examinations in the failed modules or half-modules and obtain sufficient credits to satisfy the requirements stated above. If you fail to satisfy the requirements for progression to Level 4 of the MBiolSci degree you will be required to change status to a BSc degree at this point. All students wishing to proceed to Level 4 will be interviewed in the spring semester of their Level 3 studies.

12.14 Award of a Degree.

To be awarded a degree you must satisfy two conditions. a) You must have been awarded at least 200 credits in your second and third year examinations (320 credits in second, third and fourth year examinations for MBiolSci degrees). b) You

must have a weighted average grade of not less than 40 in the second and third year (and fourth year for MBiolSci degrees) examinations as a whole.

This means that you can fail up to two modules or four half-modules in the second and third years (and fourth years) and still be awarded a degree provided your weighted average grade is above the pass mark.

12.15 Determination of Degree Classifications.

Degrees are classified as follows:

| | |
|---------|---------------------|
| Honours | Class I |
| | Class II Division 1 |
| | Class II Division 2 |
| | Class III |
| Pass | |

The BSc degree classification is determined by the grades awarded for **all second and third year modules and half-modules**. (The MBiolSci degree classification is determined by grades awarded for all second, third and fourth year modules and half-modules). Because the 100 point scale is not linear (i.e. each class is not represented by the same range of grade points) the arithmetic mean is not the most appropriate indicator of a student's degree class.

At the end of your programme of study, your degree will be classified on the basis of a calculation which takes account of both the weighted average of the grades you obtain in modules at Levels 2 and above and the class within which the best 50% of these weighted module grades fall. In the calculation, grades are weighted both according to the credit value of each module (e.g. grades for 20 credit modules are worth twice as much as 10 credit modules in the calculation) and

according to the Level at which the module was studied (i.e. your Level 3, and 4 where applicable, grades are counted twice relative to those obtained at Level 2).

First the weighted average grade is calculated and converted to a preliminary degree classification according to the following scheme:

| Weighted average grade | Preliminary Degree classification |
|------------------------|-----------------------------------|
| 69.5 or higher | First |
| 59.5 or higher | 2.1 |
| 49.5 or higher | 2.2 |
| 44.5 or higher | Third |
| 39.5 or higher | Pass |

If your weighted average grade falls within the ranges indicated below, this results in a preliminary borderline classification:

| Weighted average grade | Preliminary Borderline Degree classification |
|--------------------------|--|
| 67.0 - 69.4 ⁴ | First |
| 57.0 - 59.4 | 2.1 |
| 47.0 - 49.4 | 2.2 |
| 43.5 - 44.4 | Third |
| 37.0 - 39.4 | Pass |

⁴ Note: For students who commenced level 1 or level 2 in, or after September 2010, these borderline values have been changed. The borderlines will be: first class 68.0-69.4, 2.1 58.0 – 59.4, 2.2 48.0-49.4, 3 43.5-44.4, Pass 38.0 – 39.4.

Next the class within which the best 50% of your weighted module grades fall is calculated and converted to a second preliminary degree classification according to the following scheme:

| Classification threshold exceeded by best 50% of weighted module grades | Preliminary Degree classification |
|---|-----------------------------------|
| 69.5 or higher | First |
| 59.5 or higher | 2.1 |
| 49.5 or higher | 2.2 |
| 44.5 or higher | Third |
| 39.5 or higher | Pass |

If 5/12 of your weighted grades correspond to a classification higher than that indicated by the grades of the best 50%, you would, for the purposes of this preliminary classification, be placed in the borderline category for the higher classification. The scheme by which the preliminary classifications based on (1) the weighted average grade and (2) the best 50% of your weighted modules contribute to a final degree classification is detailed on the following page.

| Preliminary classification based on weighted average | Preliminary classification based on threshold exceeded by best 50% of weighted module grades | Final classification |
|--|--|----------------------|
| First | First | First |
| First | Borderline first | First |
| First | 2i | Borderline first |
| Borderline first | First | First |
| Borderline first | Borderline first | Borderline first |
| Borderline first | 2i | 2i |
| 2i | First | Borderline first |
| 2i | Borderline first | 2i |
| 2i | 2i | 2i |
| 2i | Borderline 2i | 2i |
| 2i | 2ii | Borderline 2i |
| Borderline 2i | 2i | 2i |
| Borderline 2i | Borderline 2i | Borderline 2i |
| Borderline 2i | 2ii | 2ii |
| 2ii | 2i | Borderline 2i |
| 2ii | Borderline 2i | 2ii |
| 2ii | 2ii | 2ii |
| 2ii | Borderline 2ii | 2ii |
| 2ii | 3rd | Borderline 2ii |
| Borderline 2ii | 2ii | 2ii |
| Borderline 2ii | Borderline 2ii | Borderline 2ii |
| Borderline 2ii | 3rd | 3rd |
| 3rd | 2ii | Borderline 2ii |
| 3rd | Borderline 2ii | 3rd |
| 3rd | 3rd | 3rd |
| 3rd | Borderline 3rd | 3rd |
| 3rd | Pass | Borderline 3rd |
| Borderline 3rd | 3rd | 3rd |
| Borderline 3rd | Borderline 3rd | Borderline 3rd |
| Borderline 3rd | Pass | Pass |
| Pass | 3rd | Borderline 3rd |
| Pass | Borderline 3rd | Pass |

| | | |
|---|---------------------------------|---------------------------------|
| Pass Pass Pass | Pass Borderline Pass Fail | Pass Pass Borderline Pass |
| Borderline Pass Borderline Pass Borderline Pass | Pass Borderline Pass Fail | Pass Borderline Pass Fail |
| Fail Fail Fail | Pass Borderline Pass Fail | Borderline Pass Fail Fail |

Where the final classification is in the borderline category, your classification will be made at the discretion of the Board of Examiners, who will take into account the weighted average grade you obtained at the final Level of your studies.

Further information is available at

<http://www.shef.ac.uk/ssid/exams/classification.html>

Note for Biology with a Year Abroad Students

The University requires that the results for Biology with a Year Abroad students are returned as a single module worth 120 credits during their 2nd year. However, this large block of identical scores skews the classification based on threshold exceeded by best 50% of weighted module grades and may unfairly advantage or disadvantage these students.

Therefore the marks from modules that are taken during the year abroad will be retained by the department and a classification based on these separate scores made available to the External Examiners (e.g. if a student took 8 x 15 credit modules at level 2, these scores would be used in the degree classification calculation). The External Examiners will also examine the student portfolio, the content of the courses taken and the scores obtained during their February visit to

ensure that the scores used in the calculation are appropriate. The department will use the external examiners discretion to make sure that these cases are dealt with fairly.

12.16 Academic Appeals Procedure.

If you wish to appeal against a degree classification, you should first discuss the matter with **Professor Richard Leegood**. If the matter cannot be resolved at departmental level there is a formal appeals procedure.

The Regulations Relating to Academic Appeals.

A student may apply under these Regulations for a recommended grade for any module or degree classification or examination result to be re-considered in the light of new evidence.

Grounds for appeal

For these purposes, 'new evidence' is defined as:

1. procedural error either by the Examiners or during the recording, transcription and reporting of the examination results;
2. extenuating circumstances which the student was unable to place, or for valid reasons did not place, before the Examiners;
3. evidence of a failure of supervision which significantly affected the candidate's performance and which could not reasonably be expected to have been the subject of complaint by the student to the Head of Department or the Dean of the Faculty before the examination.

These are the only grounds on which representations can be made. Appeals will not be considered against the academic judgement of the Examiners. Representations may, however, be made in cases where the Examiners have recommended, in response to a candidate using unfair means in an examination, that a credit or examination result be refused or a grade reduced.

Procedure

Reference in these Regulations to the Pro-Vice-Chancellor includes any person authorised to act on their behalf.

A student who wishes to place such new evidence before the Faculty shall apply in writing, setting out clearly the facts which the student wishes the Faculty to consider and showing how those facts constitute new evidence as here defined. The application must be made to the Pro-Vice-Chancellor within 14 days of the publication of the examination result in any other case.

The Pro-Vice-Chancellor may extend the time limit imposed by this Regulation.

For the purposes of these Regulations, the date of publication of examination results means the date upon which the examination results are first made available to students in the relevant Department, even though the results are still subject to confirmation by the Faculty and the Senate.

After consulting the Head of Department, the Pro-Vice-Chancellor may

- determine that the appeal be upheld; or
- convene an Academic Appeals Committee of the Board of the Faculty to hear the case;

or

- determine that there is no *prima facie* case for appeal.

Academic Appeals Committee

The Academic Appeals Committee shall comprise

the Pro-Vice-Chancellor or nominated representative;

not less than two and not more than four other members of the Faculty.

The student may opt either (a) for the appeal to be dealt with on written submissions; or (b) for an oral hearing (at which the student may choose to be accompanied by a friend or adviser).

Where the appeal is to be dealt with on written submissions, the Committee shall receive:

- a) the material submitted by the student;
- b) any written comments made on that material by or on behalf of the Head of Department and, where appropriate, by the supervisor; and
- c) any written comments made by the student on the material submitted under (b) above.

Where there is an oral hearing, the Committee shall hear oral submissions by or on behalf of the student, the Head or other representative of the Department, and where appropriate the supervisor. The student may comment on the submissions made by others. In any case in which factual matters are in dispute, the Committee shall investigate the facts, and may invite appropriate persons to attend to assist;

during this process, the student may be present and may ask questions, make comments, and produce other persons who can provide information or testimony.

At no stage during the appeal process does the student have the right to see any examination script or any report prepared by an Examiner on a dissertation for a Higher Degree by coursework and dissertation.

The Committee shall reconsider the grade, classification, result or other subject of the appeal in the light of the material available to it. Except as provided above, no person other than members of the Committee and its Secretary shall be present during its deliberations.

The Pro-Vice-Chancellor or the Committee shall report to the Faculty and may make any recommendation as to the subject matter of the appeal as could, under the relevant Regulations, have been made by the Examiners.

The decision of the Board, acting on the recommendation of the Pro-Vice-Chancellor or of the Academic Appeals Committee, is final.

Where the substance of the appeal concerns acts or omissions of the Pro-Vice-Chancellor, and in any other case where it is inappropriate for the Pro-Vice-Chancellor to act under these Regulations, the Pro-Vice-Chancellor shall appoint a Deputy.

12.17 Undergraduate Degree Examination Conventions.

The Student Services Department publishes a detailed set of conventions that govern the way in which Departments deal with examination matters. The full text

of these conventions can be viewed on the web at

www.shef.ac.uk/ssid/exams/ugexams.

INFORMATION SPECIFIC TO LEVEL 1

SECTION 13 PRIZES

There are two APS prizes that students in Level 1 can achieve;

Best Animal and Plant Sciences Level 1 Student. This prize is awarded to the student with the best examination performance at Level 1. The recipient of this prize will receive book tokens in recognition of their achievement.

Animal and Plant Sciences Exceptional Performance Prize. This prize is awarded to two students in level 1 who have performed exceptionally in their examinations and coursework. Both students receive book tokens in recognition of their achievement.

There are also two prizes that are awarded through the Faculty of Pure Sciences, these are:

Ede and Ravenscroft. Two prizes awarded by the Board of the Faculty of Science to the best overall performance by a candidate in Level 1 examinations. Both students receive £500 in recognition of their achievement.

The Sir Basil Blackwell Prize. The prize is awarded for overall performance at Level 1 – Student Services provide names to the Faculty Board. The Faculty of Science makes the award which is announced by mid July. The student receives Blackwells book tokens to the value of £170 in recognition of their achievement.

SECTION 14 PRACTICAL CLASSES AND TUTORIALS

The teaching methods used at level 1 include lectures, practical classes, tutorials and self-directed learning. Four books are recommended to all APS students to help them with all aspects of their course. These are:

- Campbell, NA and Reece, JB (2005) Biology 8th ed. Pearson
- Jones, A., Reed, R and Weyers (2007) Practical Skills in Biology 4th ed. Pearson
- Lawrence, E (Ed) (2005) Henderson's Dictionary of Biology 13th ed. Pearson
- Northedge, A; Thomas, J; Lane, A and Peasgood, A (1997) The Sciences Good Study Guide. The Open University

14.1 Practical Classes

Practical work is an essential part of all science degree courses. The major aims of practical work in biology are to give you direct experience of the living world and an insight into how science is done.

During the first year, practical work will be in the form of practical classes. These classes are designed to give you:

- experience of "real" specimens
- an appreciation of the diversity and complexity of living things
- basic laboratory experience in observation, handling and measurement
- an understanding of experimental design
- experience in analysing experimental data
- experience in preparing and presenting written reports
- a better understanding of your subject

Key points in practical work are thus:

- observing
- measuring
- manipulating
- formulating hypotheses
- designing and executing experiments
- recording
- analysing data
- reporting

The precise nature of practical classes will vary considerably, but in all cases you will be given clear objectives for each class.

Practical classes form an essential part of all the degree courses. All practical work will be assessed by online tests and a practical exam. Because of this, we track attendance at practicals.

Please note the following points concerning practical classes:

- Attendance at practical classes is compulsory
- Your attendance at practical classes is determined by your signature on the attendance list.
- If you do not sign the attendance list you will be deemed to have been absent. It is your responsibility to ensure that you have signed the attendance list.
- If you are ill then you must obtain a special circumstances form from the Animal and Plant Sciences General Office, complete it and return it to the office. If you are absent for more than a week, you will need to get a

medical certificate from the University Health Service, or another doctor, and return it with your form.

- Students who, without good reason, fail to attend two consecutive (or a significant number of non-consecutive) practical sessions, will be interviewed by the Year Tutor. If you fail to attend further practicals, you will be reported to Student Services for unsatisfactory performance. Your case will then be reviewed by the Faculty Officer. Continued absence from practicals may result in exclusion from the University.
- If you fail a practical module (APS118, APS129, APS130) then you will be required to take a re-sit examination in August. However, if you failed to attend practical classes without good reason then no re-sit examination will be offered and you will have to repeat a year of study.

APS129, APS130 and APS132 (and APS118) are compulsory modules and you must pass them to proceed to Level 2.

14.2 Tutorials (part of APS132 Skills for Biologists 1)

You will be allocated a tutor at the beginning of Level 1. Your tutor will play a dual role as both personal and academic tutor. The role of the personal tutor is to ensure that you have someone who can help you with problems. Problems can be both personal and academic. If you have personal problems you can approach your tutor for help and advice. This is the pastoral role of the tutor. Your tutor may not be able to solve your problems, but will certainly be able to give you advice or information about where to seek help. Your tutor is not the only source of help in the University. Consult SECTION 7 in this Handbook for more details on seeking help.

The role of the academic tutor is to supervise your work and academic development, to evaluate the work that you produce and to provide **feedback** on the quality of your work. The work that you do for tutorials will be assessed and contribute to the module APS132. In addition your personal tutor also plays an important role in your Personal Development Plan (see section 3.4). Your tutor will get to know you well during the academic year and will be able to provide you with a reference for future studies or employment.

If you wish you can change your tutor for personal reasons (but not academic reasons such as the research interests of your tutor) you should see **Dr Penny Watt**.

The teaching aims of tutorials are:-

- a) to equip you with a range of communication skills which are necessary if you are to work to the best of your ability during your course and which will be useful to you if you take up a career outside of science.
- b) to make you aware of the nature of science, the process of science and the place of science in society.
- c) to develop a critical approach to the collection, analysis and interpretation of data.

You will be expected to prepare yourself for participation in discussions during tutorial meetings. Your written and oral work will be graded and critical comments offered to help you develop and improve. At the end of the year you will have an opportunity to evaluate the quality of your tutorials.

You will be required to attend at least ten tutorial meetings during the academic session. Tutorial times will be arranged directly with your tutor. Your tutor will keep an attendance register.

During the course of the year you will be required to write essays, give presentations, undertake data analysis tasks and write abstracts on talks/scientific papers. Your tutor will set this work and give deadlines for their completion. Essays must be submitted to your tutor and also, in electronic form, to the TurnItIn system slots on the APS132 website (Scientific Writing section).

Please note the following points concerning tutorials:

- Attendance at tutorials is compulsory
- Your tutor will keep an attendance register and report non-attendance to the department.
- If you are ill then you must obtain a special circumstances form from the Animal and Plant Sciences General Office, complete it and return it to the office. If you are absent for more than a week, you will need to get a medical certificate from the University Health Service, or another doctor, and return it with your form.
- Your tutor will set deadlines for tutorial work. If you submit work late then late penalties will be applied.
- Students, who without good reason, fail to attend two consecutive (or a significant number) of tutorials or produce required work, will be interviewed by the Year Tutor. If you fail to attend further tutorials or submit required work, you will be reported to Student Services for unsatisfactory performance. Your case will then be reviewed by the Faculty Officer. Continued absence from Tutorials may result in exclusion from the University.

- If you fail to attend tutorials your tutor would not be able to provide you with references for employment.
- If you fail the tutorial module then you will be required to take a re-sit examination in August. However, if you failed to attend tutorials without good reason then no re-sit examination will be offered and you will have to repeat a year of study.

APS132 is a compulsory module and you must complete this module before you can proceed to Level 2.

14.3 Criteria for Assessing Tutorial Essays.

Staff are provided with criteria that are used in assessing answers. The criteria differ between coursework and answers written under invigilated examination conditions, particularly with respect to external reading and style. The phrases are used for guidance by staff but the mark awarded will reflect their judgment on the whole piece of work. At level 1 you will write essays as part of APS132 tutorials. The criteria used to assess these essays are shown below.

It is important to remember that the primary determinant of the mark is your ability to communicate your understanding of the question asked. An essay that fails to answer the question will receive a very low score (potentially 0) however well written it may be. It is **vital** that you read, understand and answer the question. If you are asked to compare two contrasting theories, an essay that simply describes one of these has failed to answer the question. Likewise, inclusion of lots of irrelevant material will reduce your mark – it is far better to write a shorter, more focussed answer. The criteria are intended as guidelines. They are meant to illustrate the general qualities in answers that examiners will be looking

for. Not all criteria can be applied rigidly to every type of question. The first and perhaps most essential, feature in answering any examination question is to answer the question asked.

Answers that fail to answer the question will be awarded a Fail grade.

Answers are assessed on the basis of

- understanding
- external reading
- synthesis and critical analysis
- relevance of the answer
- use of examples
- style.

Always be sure to identify the general category that a question falls into. Many questions require a synthesis of material from several sources – either different parts of the lecture course or lecture course material and required reading. In these questions the ability to analyse and synthesise material is paramount. Synthesis means to make a whole out of parts, to combine separate elements of thought into a whole, to reason from principles to a conclusion. Clearly for questions of this type, the repetition of a section of lecture notes, however accurately done, will be inadequate. Other questions may demand a more descriptive or factually based answer with more detailed knowledge. Selection of material from different sources may be necessary for questions of this sort. It is important that any information that has come from a published source is put in your OWN words.

The Sciences Good Study Guide (1997) Northedge, A; Thomas, J; Lane, A and Peasgood, A provides a useful guide on how to write a scientific essay.

You will learn how to find (and cite) information correctly as part of APS132. This module also contains seminars on ‘Scientific Writing’ and ‘Referencing and Plagiarism’.

The following criteria are provided to markers for level 1 tutorial essays. As the question is undertaken outside of examined conditions an examination of the scientific literature will normally be required.

To obtain a 1st class mark, (70-100) students should meet the criteria in the 1st class section below. If the answer is exceptional in some way, please award marks above 80 to ensure that answers get the credit that they deserve.

| | Understanding | Sources of information | Synthesis and critical analysis | Relevance of the answer | Examples | Style |
|--|--|--|--|---|---|--|
| 1 100 95 90 85 80 75 72 | <p>Exceptional answers will have a very wide breadth and/or depth of knowledge beyond what might be expected of a level 1 student .</p> <p>All 1st class answers should have a thorough and extensive understanding of the topic.</p> | <p>Exceptional answers will include advanced source materials that add new concepts to the answer.</p> <p>1st class answers show excellent use of basic source material with additional use of wider reading evident.</p> | <p>Exceptional answers will include clever ideas or novel combinations of ideas. Critical analysis will be extensive and may present alternative views. Gaps in current knowledge identified.</p> <p>1st class work synthesises material into an excellent answer. Key evidence should be presented and critically analysed</p> | <p>Exceptional answers will take an innovative approach to answering the question.</p> <p>1st class answers should really get to grips with the question asked and be highly focussed. No irrelevant material will be present.</p> | <p>Exceptional answers may include examples illustrating different points that are being made, some of which are drawn from advanced source material.</p> <p>1st class work should have relevant examples throughout, which are well integrated into the answer.</p> | <p>Exceptional answers should have excellent style or may have included their own diagrams of high quality.</p> <p>1st class answers should be well written in unambiguous English with a logical series of ideas and subdivision of subject matter. Good use of diagrams (where appropriate), well integrated with the text.</p> |
| 2.1 68 65 62 | <p>Good, covers relevant material accurately with a few minor errors at most.</p> | <p>Good use of relevant basic source material, but has added little or no other external reading.</p> | <p>Synthesises material into a well-organised answer. Some, but limited, critical analysis of evidence presented.</p> | <p>Answers the question directly with little irrelevant information.</p> | <p>Good use of examples to illustrate some major points.</p> | <p>Clearly written with ideas well presented, but sentence structure/phrasing could be improved. Diagrams present and referred to in text.</p> |
| 2.2 58 55 52 | <p>Basic (but adequate). Lacks some important information or misunderstands a component of the material</p> | <p>Some use of basic material, but limited in scope.</p> | <p>A reasonably accurate answer but tends to rely on recall rather than synthesising information.</p> | <p>May not address the question directly as asked or contain significant amounts of irrelevant material.</p> | <p>Limited use of examples and does not link these well with the points being made.</p> | <p>Adequately written but deficiencies in organisation. Diagrams are poor or not well integrated with text.</p> |

| | Understanding | Sources of information | Synthesis and critical analysis | Relevance of the answer | Examples | Style |
|---------------------------------|--|--|--|--|--|---|
| 3 48 45 | Incomplete. Some information from basic sources recalled but key information is missing or misunderstood | Cursory use of basic source material only. | Very little synthesis of material. A set of limited or incomplete notes. | Some information in the answer is relevant but most is not. | Very few examples given, with no real integration into the answer. | Style is poor. Grammar and syntax poor. No diagrams of any use. |
| Pass 42 40 | The most basic level of understanding that could be considered satisfactory. | Mentions basic source material but little effective use. | No synthesis or critical evaluation. | A few sections of the answer are relevant but these are poorly structured. Largely irrelevant/incorrect. | A single example at most, not linked to the text in a sensible manner. | Style is poor. Makes understanding the answer a challenge. No diagrams. |
| Fail 35 25 | Little understanding of even the basic elements. Many errors, key information missing. | None | Inability to form a coherent scientific argument. | Extensive amounts of irrelevant/incorrect information. | None | Style is very poor so that large parts of the answer cannot be understood or are contradictory. No diagrams |
| Bad fail 20 15 10 5 | Profound ignorance of the subject. | | Incoherent - a jumbled mess. | Nothing relevant or massive digression from the question. | | Riddled with errors in syntax and grammar. A random assortment of partial sentences. |
| 0 | No answer of any value | | | | | |

To fail a question, candidates should show no real grasp of the topic as asked, or clearly lack the relevant information needed to produce an acceptable answer. For marks of 20 or below, the marker should identify areas where the student has performed exceptionally poorly from the 'bad fail' criteria below. Answers which meet one of these criteria should be awarded 20, two criteria 15 and so on. As these are often errors of omission, it may not be possible to identify the affected areas on the script, but the marker must write appropriate comments.

Markers must apply and document these indicators of poor performance to ensure that poor answers are penalised appropriately.

SECTION 15 DEGREES WITH EMPLOYMENT EXPERIENCE

15.1 Introduction

The Department of Animal and Plant Sciences has introduced a series of degree programmes that provide the opportunity for undergraduate students to spend a year working in industry (commonly called sandwich years or industrial placements). Students will spend one year (between levels 2 and 3) working on a project with an industrial partner. These are expected to be salaried positions. Those who successfully complete the placement graduate with a BSc (Hons) degree with Employment Experience. Further details can be found at www.sheffield.ac.uk/placements.

We regularly provide details of placement opportunities on uSpace at

<http://uspace.shef.ac.uk/community/animalplantsci/undergraduates/employment>

Student Eligibility

To be eligible for these degrees you must:

- be willing to spend the entire year working (the average placement is 48 weeks) with the industrial partner
- have obtained a minimum score of 55 at level 1 and obtain a minimum of 60 in semester 1 modules at level 2
- be interviewed by the department and receive the Head of Department's approval to undertake the placement.
- No exceptions will be made to these eligibility requirements

The Department strongly recommends that students who are already registered for a 4 year degree (i.e. MBiolSci, Biology with a Modern Language or Biology with a Year Abroad) transfer to the 4 year Degree with Employment Experience once their placement has been accepted.

15.2 The placement

It is the student's responsibility to find and successfully apply for the placement position but the department will help you with this. When we receive information about placement possibilities we will put them on the APS uSpace under **Undergraduates: APS Employment Opportunities**. However, placements are open to students at all Universities so you should approach an application for a placement in a similar manner to a full job application.

In addition the department must approve the placement. The placement must be vetted to ensure that the role undertaken by the student is commensurate with graduate level employment and that this will clearly contribute towards the intended learning outcomes of the degree programme. Various health and safety issues/insurance liabilities have to be in place. If you meet the necessary criteria and are successful in finding a placement you transfer from your existing degree to the 4 year BSc with Employment Experience at the end of level 2. If you are interested in this scheme, please e-mail Dr Stephen Rolfe at s.rolfe@sheffield.ac.uk to register your interest.

SECTION 16 LEVEL 1 AND LEVEL 2 MODULES IN THE SCHOOL OF BIOLOGICAL SCIENCES AND DEGREE COURSE STRUCTURES

16.1 Modules at Level 1

Level 1 lecture-course modules in the School of Biological Sciences available to students registered for Biology, Biology with Conservation and Biodiversity, Biology with A Year Abroad, Biology with a Modern Language, Ecology, Plant Science, or Zoology degrees.

| Module Code | Module Title | Semester | Credits |
|-------------|---------------------------------------|----------|---------|
| APS 119 | Comparative Physiology | 1A | 10 |
| APS 120 | Reproduction, Development and Growth | 1B | 10 |
| APS 121 | Evolution | 1A | 10 |
| APS 122 | Biodiversity | 1B | 10 |
| APS 123 | Population and Community Ecology 1 | 2A | 10 |
| APS 124 | Ecosystems and Environmental Change | 2B | 10 |
| APS 125* | Genes in Populations | 2A | 10 |
| APS 126 | Behaviour of Humans and Other Animals | 2B | 10 |
| APS 131** | Ecological Identification Skills | 1 & 2 | 10 |
| BMS 151 | Cell Biology | 1 | 20 |
| BMS 157 | Principles of Molecular Biology | 1 | 10 |
| BMS 158 | Introduction to Cell Biology | 1 | 10 |

* Must be taken with BMS157

**Only available to Ecology Students

Level 1 practical modules taken by students registered for Biology, Biology with Conservation and Biodiversity, Biology with a Year Abroad, Biology with a Modern Language, Ecology, Environmental Science (ES), Plant Sciences, or Zoology degrees.

| | | | |
|------------|--------------------------------|-------|----|
| APS 118*** | Practical Skills in Biology 3 | 1 & 2 | 10 |
| APS 129 | Laboratory Skills in Biology 1 | 1 | 5 |
| APS 130 | Laboratory Skills in Biology 2 | 2 | 5 |
| APS132 | Skills for Biologists 1 | 1 & 2 | 10 |

*** To be taken by Environmental Science students only

16.2 Modules at Level 2.

The lists below give the titles of Level 2 modules in the School of Biological Sciences together with their Level 1 pre-requisites. You should note that your choice of modules at Level 1 could restrict your choice of modules at Level 2 unless you take into account pre-requisites. You should also note that the Level 2 practical modules are restricted to students registered for particular degree programmes and are thus not available as unrestricted modules.

Level 2 modules offered by the Department of Animal & Plant Sciences

| Code | Title | Sem | Credit | Recommended Requisite | Co/Pre Requisite |
|--------|---|-------|--------|-----------------------------|------------------|
| APS206 | Biotechnology and Food | 1A | 10 | APS119 | - |
| APS209 | Animal Behaviour | 2B | 10 | - | - |
| APS211 | Insects | 1B | 10 | - | - |
| APS216 | Plant, Cell and Environment | 2A | 10 | APS119 | - |
| APS220 | Evolutionary Biology | 2A | 10 | - | APS125 |
| APS222 | Tutorials | 1 & 2 | 10 | - | APS132 or APS118 |
| APS223 | World Ecosystems | 1B | 10 | APS124 | - |
| APS240 | Data Analysis Practical | 1 | 10 | Cannot be taken with GEO200 | APS 132 |
| APS246 | Plant Habitat and Distribution (1*, 2*) | 1 | 10 | - | APS124 |
| APS255 | Environmental Interpretation Field Course | 2 | 10 | APS246 | |
| APS260 | Animal Diversity Practical (2*) | 2 | 5 | - | APS210 |
| APS261 | Animal Ecology (2*) | 2 | 5 | - | APS240 |
| APS262 | Biology Projects (2*) | 2 | 5 | - | APS240 |
| APS263 | Insect Biology (2*) | 2 | 5 | - | APS240 |
| APS264 | Wildlife Forensics (2*) | 2 | 5 | - | APS240 |

| | | | | | |
|--------|---------------------------------------|----|----|---|------------------|
| APS265 | Environmental Biology (2*) | 2 | 5 | - | APS240 |
| APS266 | Ecology Projects (2*) | 2 | 5 | - | APS240 |
| APS267 | Comparative Genomics (2*) | 2 | 5 | - | APS264 |
| APS268 | Genomics, Proteomics and Metabolomics | 1 | 10 | - | - |
| APS269 | Palaeobiology | 2B | 10 | - | - |
| APS270 | Parasitism | 2A | 10 | - | - |
| APS271 | Conservation Principles | 1A | 10 | - | - |
| APS272 | Animal Diversity | 1 | 20 | - | - |
| APS273 | Population and Community Ecology 2 | 2 | 20 | - | APS123 or APS124 |

(1*) = Not available to Zoology, or Animal Behaviour students (2*) = please see Level 2 Handbook for restrictions and details

16.3 Department of Biomedical Science and Department of Molecular Biology and Biotechnology Modules

Please check the modules that are available to you on the Department's website. Please make sure that you have completed any pre-requisites. You can also check out the modules available on the Directory of Modules, through the Students Services Web pages <http://www.shef.ac.uk/ssid/course> It is your responsibility to check that these modules do not clash with any APS Modules that you are taking.

16.4 Degree Course Structures.

The structure of Level 1 for degree programmes in the Department of Animal and Plant Sciences in terms of compulsory, approved and unrestricted modules is given below. You must pass all compulsory modules to progress to Level 2.

a. **Biology (BSc, MBiolSci)**

Compulsory modules APS 119; 121, 124, 125, 129, 130, 132, BMS157; and either BMS151 and unrestricted units to the value of 30 credits or BMS158 and unrestricted units to the value of 40 credits.

b. **Biology with Conservation and Biodiversity (BSc. MBiolSci)**

Compulsory modules APS 119, 121, 122, 123, 124, 125, 129, 130, 132, BMS 157; and either BMS151 and unrestricted units to the value of 10 credits or BMS 158 and unrestricted units to the value of 20 credits.

c. **Biology with A Year Abroad (BSc)**

Compulsory modules APS 119, 121, 124, 125, 129, 130, 132, BMS 157; and either BMS151 and unrestricted units to the value of 10 credits or BMS 158 and unrestricted units to the value of 20 credits. Level 1 APS, MBB or BMS units to the value of 20 credits.

d. **Biology with A Modern Language (BSc)**

Compulsory modules APS 119, 121, 124, 125, 129, 130, 132, BMS157, units to the value of 20 credits in your single chosen language (either French, Spanish, German or Italian), and either BMS151 and units to the value of 10 credits from APS, BMS, MBB or MLT or BMS158 and units to the value of 20 credits from APS, BMS, MBB or MLT

e. **Ecology (BSc, MBiolSci)**

Compulsory modules APS 121, 122, 123, 124, 125, 129, 130, 131, 132, BMS157, and either BMS151 and unrestricted units to the value of 10 credits or BMS158 and unrestricted units to the value of 20 credits.

f. **Plant Sciences (BSc, MBioSci)**

Compulsory modules APS 119, 120, 121, 122, 124, 125, 129, 130, 132, BMS157, and either BMS151 and unrestricted units to the value of 10 credits or BMS 158 and unrestricted units to the value of 20 credits.

g. **Zoology (BSc, MBiolSci)**

Compulsory modules APS 119, 120, 121, 122, 123, 125, 126, 129, 130, 132, BMS 157, and either BMS151 or BMS158 and unrestricted units to the value of 10 credits.

SECTION 18 LEVEL 1 MODULES

APS118 PRACTICAL SKILLS IN BIOLOGY 3

| | | | |
|-----------------|----|----------------------|--|
| LEVEL: | 1 | SEMESTER: | 1 and 2 |
| CREDITS: | 10 | CO-ORDINATOR: | DR GARETH PHOENIX (Tutorials), DR FIONA HUNTER (Practical Classes) |

DESCRIPTION:

This course is designed to develop students' skills in practical laboratory investigation, to improve their skills in written and verbal presentation, gain basic understanding of statistical analyses, and to develop an informed attitude to science and a critical approach to the meaning of scientific data.

DELIVERY METHOD: Twelve 3-hour laboratory practical classes, and ten 1-hour tutorials.

STUDENT CONTACT HOURS: 46

ASSESSMENT METHOD: Assessed practical reports, assessed written work and oral presentations.

Students must pass both the tutorial and practical component to pass APS118.

Tutorial essays must be submitted directly to your tutor and also electronically through the TurnItIn system via MOLE.

FEEDBACK: Feedback is given in practicals and on marked tutorial essays.

APS119 COMPARATIVE PHYSIOLOGY

| | | | |
|-----------------|----|------------------------|--|
| LEVEL: | 1 | SEMESTER: | 1A |
| CREDITS: | 10 | TEACHING STAFF: | PROFESSOR RICHARD LEEGOOD, DR RHONDA SNOOK |
| | | CO-ORDINATOR: | PROFESSOR RICHARD LEEGOOD |

DESCRIPTION:

This course is an introduction to the physiology of animals, plants and fungi. The course will compare and contrast the ways in which animals, plants and fungi acquire and process energy, nutrients and water, with particular attention paid to the relationship between structure and function.

AIMS AND OBJECTIVES:

This unit aims to introduce students to the essential physiological processes of plants, fungi and animals and to enable them to compare and contrast these processes.

By the end of the unit, a candidate will be able to (i) explain the processes photosynthesis in plants, and respiration in animals and plants (ii) describe the acquisition and transport of water and nutrients in plants (iii) describe the nutritional and gas exchange processes in animals and (iv) outline the regulation of temperature, water balance and excretion in animals.

DELIVERY METHOD: 18 lectures

STUDENT CONTACT HOURS: 18

ASSESSMENT METHOD: 2 hour, multiple-choice examination

You are required to take the on-line self assessment test for APS119 between 9am Monday 7/11/11 and 5pm Friday 11/11/11.

FEEDBACK: You will receive feedback via the online self-assessment test within 1 week of the test closing. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS120 REPRODUCTION, DEVELOPMENT AND GROWTH

| | | | |
|-----------------|----|------------------------|---|
| LEVEL: | 1 | SEMESTER: | 1B |
| CREDITS: | 10 | TEACHING STAFF: | PROFESSOR ANDREW FLEMING, PROFESSOR MIKE BURRELL, DR FIONA HUNTER, DR RHONDA SNOOK. |
| | | CO-ORDINATOR: | PROFESSOR ANDREW FLEMING |

DESCRIPTION:

This course provides an introduction to the reproduction, development and growth of multicellular organisms. The course will consider the processes of animal reproduction, fertilization and embryo development and compare and contrast them with equivalent processes in other organisms (plants and fungi).

AIMS AND OBJECTIVES:

This unit aims to introduce students to the essential and unifying concepts of reproduction, development and growth in multicellular organisms.

By the end of this unit, a candidate will be able to (i) outline mammalian reproduction, early embryonic development and differentiation (ii) describe the essential elements of reproduction, morphogenesis and differentiation in plants and fungi and (iii) identify the similarities and differences in the approaches that multicellular organisms take to the essential tasks of growth and reproduction.

DELIVERY METHOD: 18 lectures

STUDENT CONTACT HOURS: 18

ASSESSMENT METHOD: 2 hour, multiple-choice examination

You are required to take the on-line self assessment test for APS120 between 9am Monday 12/12/11 and 5pm Friday 16/12/11.

FEEDBACK: You will receive feedback via the online self-assessment test within 1 week of the test closing. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS121 EVOLUTION

| | | | |
|-----------------|----|------------------------|---|
| LEVEL: | 1 | SEMESTER: | 1A |
| CREDITS: | 10 | TEACHING STAFF: | DR CHARLES WELLMAN, PROFESSOR MIKE SIVA-JOTHY, PROFESSOR ROB FRECKLETON |
| | | CO-ORDINATOR: | DR. CHARLES WELLMAN |

DESCRIPTION:

This course presents evolution as the central unifying theme of modern biology. It begins with a brief overview of the origin of life and important events in the early history of life on earth. It goes on to explore evolutionary mechanisms: essentially how evolution works. The course finishes with three case studies in evolution.

AIMS AND OBJECTIVES:

This unit aims to introduce students to evolutionary theory and demonstrate that evolution is the central unifying theme of modern biology.

By the end of the unit the student will be able to: (i) explain the basic principles of evolutionary theory; (ii) describe examples of evolutionary processes; (iii) recall major events in the origin of life and early evolution of life on Earth.

DELIVERY METHOD: 18 lectures

STUDENT CONTACT HOURS: 18

ASSESSMENT METHOD: 2 hour, multiple-choice examination

You are required to take the on-line self assessment test for APS121 between 9am Monday 7/11/11 and 5pm Friday 11/11/11.

FEEDBACK: You will receive feedback via the online self-assessment test within 1 week of the test closing. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS122 BIODIVERSITY

| | | | |
|-----------------|----|------------------------|--|
| LEVEL: | 1 | SEMESTER: | 1B |
| CREDITS: | 10 | TEACHING STAFF: | DR CHARLES WELLMAN, DR FIONA HUNTER, PROFESSOR MARK REES |
| | | CO-ORDINATOR: | DR. CHARLES WELLMAN |

DESCRIPTION:

This course introduces the concept of biodiversity - what it is and how we measure it. Biodiversity will be explored through two case studies: (i) the plant kingdom; (ii) the animal kingdom. Both kingdoms will be considered in terms of their characteristics, classification, evolutionary history, biodiversity and biogeography.

AIMS AND OBJECTIVES:

This unit aims to introduce students to the concept of biodiversity and to provide a detailed understanding of the plant and animal kingdoms.

By the end of the unit the student will be able to: (i) explain the concept of biodiversity and how it is measured; (ii) understand the major features of both the plant and animal kingdoms.

DELIVERY METHOD: 18 lectures

STUDENT CONTACT HOURS: 18

ASSESSMENT METHOD: 2 hour, multiple-choice examination

You are required to take the on-line self assessment test for APS122 between 9am Monday 12/12/11 and 5pm Friday 16/12/11.

FEEDBACK: You will receive feedback via the online self-assessment test within 1 week of the test closing. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS123 POPULATION AND COMMUNITY ECOLOGY 1

| | | | |
|-----------------|----|------------------------|--------------------------------------|
| LEVEL: | 1 | SEMESTER: | 2A |
| CREDITS: | 10 | TEACHING STAFF: | DR ANDREW BECKERMAN, DR DYLAN CHILDS |
| | | CO-ORDINATOR: | DR ANDREW BECKERMAN |

DESCRIPTION:

This course is an introduction to the fundamental principles of ecology and their applications. We consider ecology at different levels of complexity focussing at first on the ecology of individuals including life-history strategies. Next the ecology of populations including population growth/regulation and population dynamics will be discussed. The ecology of interactions including hosts and parasites, predators and prey and competitors will naturally follow from this as will the applications of population ecology to key subjects such as the control of disease. With this grounding, we will then consider the ecology of communities including the factors that promote diversity and stability. Applications of these principles to optimal harvesting and conservation management will be discussed.

AIMS AND OBJECTIVES:

The unit aims to give an introduction to the Ecology of individuals, populations and communities. It provides an understanding of how individual behaviour and interactions between individuals affect population and community dynamics. It also provides an insight into the applications of ecological thinking to the control of disease, the sustainable harvesting of populations and the conservation of endangered species. By the end of the unit, a candidate will be able to demonstrate a knowledge of the ecology of individuals, populations and communities. They will also understand how this ecological knowledge can be applied to the management of the environment.

| | |
|-------------------------------|-------------------------------------|
| DELIVERY METHOD: | 18 lectures |
| STUDENT CONTACT HOURS: | 18 |
| ASSESSMENT METHOD: | 2 hour, multiple-choice examination |

You are required to take the on-line self assessment test for APS123 between 9am Monday 14/05/12 and 5pm Friday 18/05/12.

FEEDBACK: You will receive feedback via the online self-assessment test within 1 week of the test closing. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS124 ECOSYSTEMS AND ENVIRONMENTAL CHANGE

| | | | |
|-----------------|----|------------------------|--|
| LEVEL: | 1 | SEMESTER: | 2B |
| CREDITS: | 10 | TEACHING STAFF: | PROFESSOR IAN WOODWARD , DR GARETH PHOENIX |
| | | CO-ORDINATOR: | PROFESSOR IAN WOODWARD |

DESCRIPTION:

This course provides an introduction to ecosystems, their development and processes, and their importance in determining, and responding to, the effects of environmental change. It examines a range of ecosystems at a global level, with particular regard to their interaction with important global 'issues', including CO₂ increase, global warming, disturbance caused by pests and diseases, and biodiversity. Prediction of likely responses of ecosystems to global environmental change is also explored. The course also examines in more detail some of the key ecosystems in Britain, particularly deciduous woodland, wetland, moorland and grassland systems. It considers aspects of how these ecosystems 'work' ecologically, and uses each as exemplary illustrations of key ecological concepts: e.g. controls on species composition by environmental factors and community processes; community interactions; nutrient cycling; succession. It also considers the development of these ecosystems during the post-glacial period, thereby linking their past and present status with current concerns about global environmental change.

AIMS AND OBJECTIVES:

This unit aims to provide a detailed consideration of ecosystem processes worldwide and the importance of global environmental change. It also aims to provide an introduction to major British ecosystems and to the factors that control their characteristics and distribution. By the end of the unit students will be able to demonstrate the pattern of post-glacial ecosystem development in Britain, identify the main community processes in vegetation, understand successional processes, and identify some of the main reasons for variation in species richness. They will be able to describe the components and properties of the simplest to the most complex ecosystems; understand the relationships between the geographical distributions of different terrestrial ecosystems and climate and soils; and understand future problems for ecosystems and how their responses to changes in climate and atmospheric carbon dioxide concentrations can be predicted.

| | |
|-------------------------------|-------------------------------------|
| DELIVERY METHOD: | 17 lectures |
| STUDENT CONTACT HOURS: | 17 |
| ASSESSMENT METHOD: | 2 hour, multiple-choice examination |

There is no on-line self assessment test for this module but feedback will be provided during the module.

FEEDBACK: You will receive feedback during the module. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS125 GENES IN POPULATIONS

| | | | |
|------------------------|------------------|----------------------|--|
| LEVEL: | 1 | SEMESTER: | 2A |
| CREDITS: | 10 | CO-REQUISITE: | BMS157 Principles of Molecular Biology |
| TEACHING STAFF: | DR GARETH FRASER | CO-ORDINATOR: | DR GARETH FRASER |

DESCRIPTION:

Familiarity with classical population and quantitative genetics is fundamental to the modern synthesis of biology. This module provides an introduction to the principles of genetics at the levels of the individual and the population. Topics include Mendelian inheritance and gene interaction, linkage, heritability, sources and maintenance of variation in populations, divergence of populations and speciation. Lectures will emphasize an approach to understanding genetics at the individual and population level by learning how genetic inferences are made through quantitative analyses.

AIMS AND OBJECTIVES:

This unit aims to introduce students to the study of genetics at the organismal and population levels. By the end of the unit, a candidate will be able to demonstrate a knowledge of:

- the fundamentals of inheritance and gene interaction within individuals
- the quantitative genetic basis of phenotypic variation
- the sources and maintenance of variation in populations
- the genetic basis of natural selection

DELIVERY METHOD: 18 lectures including three quizzes based on a well known TV gameshow.

STUDENT CONTACT HOURS: 18

ASSESSMENT METHOD: 2 hour, multiple-choice examination

There is no on-line self assessment test for this module but feedback will be provided during the module.

FEEDBACK: You will receive feedback during the module. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS126 BEHAVIOUR OF HUMANS AND OTHER ANIMALS

| | | | |
|-----------------|----|------------------------|--|
| LEVEL: | 1 | SEMESTER: | 2B |
| CREDITS: | 10 | TEACHING STAFF: | DR VIRPI LUMMAA, NICOLA HEMMINGS, DR JO WIMPENNY |
| | | CO-ORDINATOR: | PROFESSOR TIM BIRKHEAD |

DESCRIPTION:

This unit will provide an introduction to behaviour, focussing on the four fundamental questions: (i) the evolution of behaviour; (ii) the function of behaviour; (iii) the ontogeny of behaviour and (iv) the causation (or mechanisms) of behaviour. The course will introduce the major concepts and information on specific topics, including sexual behaviour, foraging behaviour and social behaviour in humans and non-humans. A central theme will be the extent to which animal behaviour can inform us about human behaviour and in particular the similarities and differences between the evolutionary approach to animal behaviour and evolutionary psychology.

AIMS AND OBJECTIVES:

This unit aims to provide an introduction to the behaviour of humans and non-humans, to: (1) distinguish the four fundamental approaches to behaviour (evolution, function or adaptive significance, ontogeny or development and causation); (2) introduce major concepts of behaviour; (3) provide information on specific topics and (4) to critically assess the extent which animal behaviour can inform us about human behaviour.

By the end of the unit a candidate will: (1) be able to distinguish the four fundamental approaches to behaviour (evolution, function or adaptive significance, ontogeny or development and causation); (2) be able to recognise and understand major concepts of behaviour; (3) possess a knowledge of specific topics in behaviour and (4) be aware of the extent which animal behaviour informs us about human behaviour.

| | |
|-------------------------------|-------------------------------------|
| DELIVERY METHOD: | 18 lectures |
| STUDENT CONTACT HOURS: | 18 |
| ASSESSMENT METHOD: | 2 hour, multiple-choice examination |

You are required to take the on-line self assessment test for APS126 between 9am Monday 19/3/12 and 5pm Friday 23/03/12

FEEDBACK: You will receive feedback via the online self-assessment test within 1 week of the test closing. You will also receive feedback on your performance in different sections of the multiple choice examination after the marks have been released.

APS129 Laboratory Skills in Biology 1

LEVEL: 1 **SEMESTER:** 1
CREDITS: 5 **CO-ORDINATOR:** DR FIONA HUNTER

DESCRIPTION:

The practical course allows students to gain experience in a range of appropriate practical techniques and skills relevant to research in biosciences. Individual practicals examine levels of organisation of organisms from an evolutionary and mechanistic standpoint. Students will perform experiments, collect and analyse data and prepare reports which summarise the results of this work and place it in a broader biological context.

LEARNING OBJECTIVES:

- By the end of this module students will:
- have an appreciation of the complexity and diversity of living organisms;
- know how to observe and record biological material;
- know how to conduct and interpret physiological studies;
- be able to use standard laboratory equipment correctly and safely;
- be familiar with units of measurement and the generation and use of standard curves;
- be able to plan and execute practical work and accurately record and analyse data;
- be able to work individually and as part of a group in the planning, execution and analysis of a given task;
- gain in depth knowledge of the biological systems studied in each practical class.

DELIVERY METHOD: Laboratory Sessions
STUDENT CONTACT HOURS: 36
ASSESSMENT METHOD: A practical exam and online assessments.
FEEDBACK: Feedback is given in practicals.

APS130 Laboratory Skills in Biology 2

LEVEL: 1 **SEMESTER:** 2
CREDITS: 5 **CO-ORDINATOR:** DR FIONA HUNTER

DESCRIPTION:

The practical course allows students to gain experience in a range of appropriate practical techniques and skills relevant to research in biosciences. This module will build upon basic laboratory skills acquired in APS129 (Laboratory Skills in Biology 1). Individual practicals examine levels of organisation of organisms from an evolutionary and mechanistic standpoint. Students will perform experiments, collect and analyse data and prepare reports which summarise the results of this work and place it in a broader biological context.

LEARNING OBJECTIVES:

- By the end of this module students will:
- know how to conduct and interpret behavioural and ecological studies;
- understand the basic concepts of population and quantitative genetics;
- understand the principles of DNA extraction and analysis;
- be able to plan and execute practical work and accurately record and analyse data;
- be able to work individually and as part of a group in the planning, execution and analysis of a given task;
- gain in depth knowledge of the biological systems studied in each practical class.

DELIVERY METHOD: Laboratory Sessions

STUDENT CONTACT HOURS: 36

ASSESSMENT METHOD: A practical examination and online assessments.

FEEDBACK: Feedback is given on marked assessments and model answers posted on the web after each practical, enabling self improvement.

APS131 ECOLOGICAL IDENTIFICATION SKILLS

| | | | |
|-----------------|----|------------------------|------------------|
| LEVEL: | 1 | SEMESTER: | 1 & 2 |
| CREDITS: | 10 | TEACHING STAFF: | Dr PHILIP WARREN |
| | | CO-ORDINATOR: | Dr PHILIP WARREN |

DESCRIPTION:

This course gives experience of the identification and research skills needed for ecological fieldwork. It involves a structured programme of online identification and research assignments over the academic year, with a practical examination at the end of the year. The course will develop familiarity with using identification guides, with a range of plant and invertebrate groups, and the ecological issues associated with them.

AIMS AND OBJECTIVES:

This unit aims to develop skills in the recognition and identification of a range of UK organisms; the use of keys and other reference sources for identification; and researching ecological background information on organisms.

By the end of, the unit, a candidate will be able to: (i) demonstrate the ability to recognize/identify a range of plants and animals likely to be encountered in an the UK, and comment on the ecological context in which they are likely to be encountered; (ii) use standard field guides; (iii) understand how to report formal and common names of organisms; (iv) obtain and report relevant ecological and conservation information about organisms.

| | |
|-------------------------------|--|
| DELIVERY METHOD: | 2 introductory seminars, online exercises, independent field visits |
| STUDENT CONTACT HOURS: | 6 |
| ASSESSMENT METHOD: | continuous assessment of identification exercises; 3 hour examination; field visit diary |

There is no on-line self assessment test for this module but feedback will be provided during the module.

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| FEEDBACK: | Students will receive feedback throughout the module |
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APS132 SKILLS FOR BIOLOGISTS 1

| | | | |
|----------------------|------------------|------------------------|-----------|
| LEVEL: | 1 | SEMESTER: | 1 & 2 |
| CREDITS: | 10 | TEACHING STAFF: | APS Staff |
| CO-ORDINATOR: | Dr STEPHEN ROLFE | | |

DESCRIPTION:

The Skills for Biology module introduces students to the fundamentals of scientific writing, presentation skills, experimental design and data analysis, information technology, the role of science in society and career development. Concepts will be introduced in a series of lectures and seminars that students will then develop through independent study using printed and online module material and activities. Key transferable skills will then be developed and integrated using small group tutorials.

AIMS AND OBJECTIVES:

Students will gain experience of scientific writing, understanding the scientific literature, writing abstracts of seminars and papers, experimental design and giving short presentations in small group tutorials. In addition, there will be the opportunity to discuss specific aspects of the degree course and the wider implications of biology in society.

Students will also gain generic transferable skills necessary to acquire information from electronic sources and present information in documents and electronic presentations. Specific skills in data handling, statistical analysis and scientific presentations relevant to biological subjects will be introduced and developed using software packages common in research environments.

The module also aims to enhance student employability within the competitive labour market and maximise their potential to develop a successful long term career.

At the end of this module the student should:

- be able to access and evaluate bioscience information from a variety of sources and to communicate the principles both orally and in writing in a way that is well-organised, topical and recognises the limits of current hypotheses.
- have gained skills in experimental design and critical analysis.
- be familiar with the computing systems and electronic sources of information available at the University of Sheffield.
- be able to access the scientific literature using a range of methods, write documents in a manner appropriate for scientific reports, prepare and present scientific data, handle and analyse data using scientific software packages and have a thorough understanding of basic descriptive statistics.
- understand the concept of employability, be aware of the skills that they develop through academic study and the relevance to the graduate labour market, be aware of the range of opportunities available to graduates, understand the graduate recruitment and selection process and be able to market themselves effectively.

DELIVERY METHOD: Worksheets, small group tutorials, seminars, online assessment

STUDENT CONTACT HOURS: 20

ASSESSMENT METHOD: Tutorial Work 50%, APS132 Workbook 50%. Students must also complete a CV and covering letter and submit this to their tutor.

FEEDBACK: Students will receive feedback via their personal tutors. Feedback for the APS132 workbook will be given online.

BMS151 CELL BIOLOGY

LEVEL: 1 **SEMESTER:** 1
CREDITS: 20 **MODULE CO-ORDINATOR:** Dr M. Cambray-Deakin

AIMS:

This module aims to provide students with a firm knowledge base in cell biology.

CONTENT:

This module gives information regarding the following: tools in cell biology, prokaryotes and eukaryotes; the structure and function of cell membranes; cellular compartmentation; nucleus and cytoplasm; the organelles; cell metabolism; protein synthesis, modification and transport; endocytosis; the cytoskeleton and its role in cell division and motility; the extracellular matrix and cell adhesion; cell-cell junctions; the development, specialisation and roles of cells that form the basic tissues (epithelia, muscle, nervous tissue, connective tissue); cell-cell signalling including aspects of endocrine, paracrine and autocrine signals, receptors and second messengers.

OBJECTIVES

In line with the general degree objectives of acquiring detailed knowledge of the area and developing practical skills, this module has a set of specific objectives. On completion of this module students should be able to:

- List the fundamental features of prokaryotic and eukaryotic cells and methods used to examine them.
- Note the structure, composition and role of eukaryotic cell membranes.
- State the major biochemical pathways associated with the regulation of cell energy.
- Recognise and give roles for the major cell organelles.
- Identify and give roles for components of the extracellular matrix.
- Recall types of cell-cell junctions.
- List the basic tissues and define their specialised structures and embryological origins.
- Relate the key features of haemostasis.
- Name specific processes and proteins involved in membrane transport.
- State the major stages of the cell cycle.
- Relate various parameters important in the control of membrane potential.
- Give examples of intercellular chemical messengers.
- Define the term receptor.
- Give mechanisms by which different messenger-receptor interactions bring about long or short-term changes in cell state.

TEACHING METHODS: The module is taught with a combination of traditional 50 minute lectures and Web-based material.

ASSESSMENT: The module is assessed by a multiple choice, examination.

BMS157 PRINCIPLES OF MOLECULAR BIOLOGY

| | | | |
|-----------------|----|-----------------------------|----------------|
| LEVEL: | 1 | SEMESTER: | 1 |
| CREDITS: | 10 | MODULE CO-ORDINATOR: | Dr. J.L. Weiss |

AIMS:

This module aims to provide students with an introduction to the techniques and knowledge bases of molecular biology and genetics.

CONTENT:

- Introduction to the genetic material
- DNA replication and RNA synthesis
- Molecular biological techniques
- Genetic engineering 1
- The genetic code/translation
- Protein structure
- Relationships of protein structure to function
- Genetic control of protein structure
- Control of the cell cycle
- OBJECTIVES
- A student should be able to demonstrate a knowledge of:
 - The nature of the gene and the history of its discovery
 - The basic mechanisms of mitosis and meiosis and control of the cell cycle
 - The structure of DNA
 - The mechanisms involved in DNA replication
 - The nature of the genetic code
- Genomes: Content and organization
- Principles of Mendelian Genetics
- Genetic analysis of prokaryotes
- Transcriptional control (prokaryotes)
- Regulation of eukaryotic gene expression 1
- Regulation of eukaryotic gene expression 2
- Genetic engineering 2
- Bioinformatics and Computer tutorial
- MCQ tutorial
- The mechanisms involved in transcription and translation
- Relationships of protein structure to function and their genetic control
- Key points on the use of techniques for nucleic acid investigation, manipulation, and genetics
- The principle features of gene organisation/regulation comparing prokaryotes and eukaryotes
- Post-transcriptional control mechanisms

TEACHING METHODS:

The module will involve lectures to present the knowledge base and supplementary material will be provided as handouts or on the module web page. Students are expected to read the textbook assignments prior to each lecture and to spend substantial time after clarifying and extending their understanding of lecture contents by collating their lecture notes with the web material and handout information. Some online assignments will be given for formative assessment with general feedback. A computer tutorial session and assignment will aid in expanding the knowledge base. The final teaching slot is a tutorial session with advice about examinations, and specimen questions.

ASSESSMENT:

Assessment will be by a 1.5 hour, formal, multiple-choice question paper covering material from lectures and assignments. Assignments will also be assessed and contribute to module marks.

BMS158 INTRODUCTION TO CELL BIOLOGY

LEVEL: 1 **SEMESTER:** 1
CREDITS: 20 **MODULE CO-ORDINATOR:** Dr M. Cambray-Deakin

AIMS:

This module aims to provide students with an introduction to selected aspects of cell biology.

CONTENT:

This module gives information regarding the following: tools in cell biology, prokaryotes and eukaryotes; the structure and function of cell membranes; the cytoskeleton and its role in cell division and motility; the extracellular matrix and cell adhesion; cell-cell junctions; the structure and function of muscle cells; cell-cell signalling including aspects of endocrine, paracrine and autocrine signals, receptors and second messengers.

OBJECTIVES:

In line with the general degree objectives of acquiring detailed knowledge of the area and developing practical skills, this module has a set of specific objectives. On completion of this module students should be able to:

- List the fundamental features of prokaryotic and eukaryotic cells, and methods used to examine them.
- Note the structure, composition and role of eukaryotic cell membranes.
- Give the major elements of the cytoskeleton and describe their structure and function.
- State the major stages in the cell cycle.
- Identify and give roles for components of the extracellular matrix.
- Relate various parameters important in the control of membrane potential.
- Name specific processes and proteins involved in membrane transport.
- Give examples of intercellular chemical messengers.
- Define the term receptor.
- Give mechanisms by which different messenger-receptor interactions bring about long or short-term changes in cell state.
- Note basic principles of development and the formation of the germ layers
- Recall fundamental features of muscle biology
- Recall types of cell-cell junctions

TEACHING METHODS: The module is taught with a combination of traditional 50 minute lectures and Web-based material.

ASSESSMENT: The module is assessed by a multiple choice, examination.

SECTION 19 PRACTICAL CLASSES

AUTUMN SEMESTER

19.1 APS118 Practical Skills in Biology 3 & APS129 Laboratory Skills in Biology 1.

Students will be allocated to *either* Group A, which will attend the morning session 9.30-12.30 *or* Group B, which will attend the afternoon session 2.00-5.00. Practical classes will be held in Perak Teaching Laboratory 3. A list of which students have been allocated to each group will be included in the information packs in the Level 1 meeting in Intro Week.

SPRING SEMESTER

19.2 APS118 Practical Skills in Biology 3 & APS130 Laboratory Skills in Biology 2.

You will remain in the group (A or B) to which you were allocated in APS129. Practical classes will be held in Perak Teaching Laboratory 3.

Please note that eating and drinking are not allowed in lecture theatres or laboratories. The University of Sheffield is a non-smoking area. You must wear a reasonably clean white laboratory coat for all your practical classes. These can be bought from the shop in the Union of Students.

SECTION 20 SCHOOL OF BIOLOGICAL SCIENCES LEVEL 1 MODULES

AUTUMN SEMESTER

| | |
|---------|------------------------------------|
| APS 118 | PRACTICAL SKILLS IN BIOLOGY 3 |
| APS 119 | COMPARATIVE PHYSIOLOGY |
| APS 120 | REPRODUCTION, DEVELOPMENT & GROWTH |
| APS 121 | EVOLUTION |
| APS 122 | BIODIVERSITY |
| APS 129 | LABORATORY SKILLS IN BIOLOGY 1 |
| APS 131 | ECOLOGICAL IDENTIFICATION SKILLS |
| APS132 | SKILLS FOR BIOLOGISTS 1 |
| BMS 157 | PRINCIPLES OF MOLECULAR BIOLOGY |
| BMS 158 | INTRODUCTION TO CELL BIOLOGY |

SPRING SEMESTER

| | |
|---------|---------------------------------------|
| APS 118 | PRACTICAL SKILLS IN BIOLOGY 3 |
| APS 123 | POPULATION & COMMUNITY ECOLOGY |
| APS 124 | ECOSYSTEMS & ENVIRONMENTAL CHANGE |
| APS 125 | GENES IN POPULATIONS |
| APS 126 | BEHAVIOUR OF HUMANS AND OTHER ANIMALS |
| APS 130 | LABORATORY SKILLS IN BIOLOGY 2 |
| APS 131 | ECOLOGICAL IDENTIFICATION SKILLS |
| APS132 | SKILLS FOR BIOLOGISTS 1 |

SECTION 21 SKILLS TAUGHT WITHIN ANIMAL & PLANT SCIENCES RELEVANT TO THE DEVELOPMENT OF YOUR PERSONAL DEVELOPMENT RECORD (PDR)

Your level 1 courses teach a range of intellectual, practical and transferable skills which you may wish to highlight to potential employers. Below is a list of these. When applying for employment it would be a good idea to reflect upon the courses you have done in order to evaluate the range of skills that you have acquired.

| | |
|-----------------------------------|---|
| Intellectual and practical skills | |
| Students will be able to : | |
| S1 | Recognise and apply biological and zoological/ecological/botanical/fungal theories, concepts, principles and/or paradigms to their work |
| S2 | Obtain and integrate biological and zoological/ecological/botanical/fungal evidence to formulate and test hypotheses. |
| S3 | Design objective investigations that optimise the relationship between sample size and statistical power in order to address focussed questions and interpret empirical data in an objective, critical and informative manner. |
| S4 | Exercise independent thought and judgement |
| S5 | Recognise the moral and ethical issues of a particular approach and appreciate the need for ethical standards and appropriate codes of conduct |
| S6 | Use first principles in biology and zoology/ecology/plant sciences, factual knowledge of systems and, where appropriate, information technology to analyse and/or interpret novel problems in biology/zoology/ecology/plant science |
| S7 | Critically analyse, synthesise, summarise and cite printed and electronic information |
| S8 | Carry out a health and safety risk assessment and devise a safe system of working |
| S9 | Collect, record, organise and analyse qualitative and quantitative field and laboratory data to address biological/ zoological/ecological/botanical questions |
| S10 | Use commercial software for the analysis, design and presentation of information and/or data |

| | |
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| Transferable skills | |
| Students will be able to: | |
| T1 | Find and utilise electronic and printed information effectively |
| T2 | Communicate effectively in writing |
| T3 | Communicate effectively orally |

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| T4 | Use AV presentation aids effectively |
| T5 | Manage projects |
| T6 | Identify individual and collective goals and responsibilities and perform in a manner appropriate to those roles |
| T7 | Recognise and respect the views and opinions of other team members |
| T8 | Reflect on individual and group performance and adjust subsequent approaches |
| T9 | Negotiate effectively |
| T10 | Self-manage and have the skills underpinning life-long learning (time-management, independent learning, organisational skills) |
| T11 | Make informed/justifiable decisions |
| T12 | Identify and work towards targets for personal, academic and career development |
| T13 | Develop an adaptable, flexible and effective approach to study and work |
| T14 | Appreciate the interdisciplinary nature of science |

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