



school of *B*iology

Undergraduate Handbook

2011-12

Welcome to the School of Biology.

This handbook provides you with information about degrees taken either wholly or partly within the School of Biology. It is designed to be used alongside the 'University Student Handbook' which you can access at:

<http://www.st-andrews.ac.uk/studenthandbook/>, and which contains all the University regulations relating to undergraduate study at St Andrews.

Where to go with questions in the School of Biology :

- Firstly, *please take the time to read through this booklet*, as it should answer most of your general questions.
- If you require further information, the Biology Teaching Office secretary, Sandra Dunn (sd6@st-andrews.ac.uk), can deal with most general enquiries.
- If you are having academic difficulties with any particular module then it is advisable to see the module organiser, or to speak to the lecturer if it is a specific question relating to his or her subject.
- Your Adviser of Studies is the main person to contact with general or specific questions not answered in this booklet, relating to your overall performance or progress or your future plans. If you feel more comfortable speaking with another member of staff you may do so.
- Questions or difficulties may also be brought to me as the Director of Teaching (biodot@st-andrews.ac.uk; 01334 463548); in addition it is the Director of Teaching who must be notified of any problems that are affecting your studies.
- The School of Biology operates an open door policy and you should feel free to approach any one of us at any time with any major issues. Be aware that staff have teaching and research responsibilities that may take us out of our offices for much of the day and e-mail is sometimes the most convenient means of contacting us to arrange a meeting.

We very much hope that you find your degree course to be stimulating and challenging and that you enjoy your studies within our School.

Dr Clare Peddie, Director of Teaching

September 2011

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Semester dates 2011-2012

www.st-andrews.ac.uk/semesterdates/2011-2012/.

Semester 1: Martinmas Semester

Monday 26 September 2011 - Friday 20 January 2012

Week	Week beginning	Events
Pre-sessional	Monday 19 September 2011	Orientation week*
Week 1	Monday 26 September 2011	Teaching begins
Week 2	Monday 3 October 2011	
Week 3	Monday 10 October 2011	
Week 4	Monday 17 October 2011	
Week 5	Monday 24 October 2011	
Week 6	Monday 31 October 2011	
Week 7	Monday 7 November 2011	Reading week*
Week 8	Monday 14 November 2011	
Week 9	Monday 21 November 2011	Raisin Monday - classes as normal
Week 10	Monday 28 November 2011	
St Andrew's Day Graduation - no teaching all day (Wednesday 30)		
Week 11	Monday 5 December 2011	
Week 12	Monday 12 December 2011	
Vacation	Saturday 17 December 2011	Christmas vacation begins
Week 13	Monday 2 January 2012	Revision period begins (Wednesday 4)
Week 14	Monday 9 January 2012	Examinations begin (Tuesday 10)
Week 15	Monday 16 January 2012	Examinations end (Friday 20)
Inter-semester	Monday 23 January 2012	No classes for 2 weeks

Semester 2: Candlemas Semester

Monday 6 February 2012 - Friday 25 May 2012

Week	Week beginning	Events
Week 1	Monday 6 February 2012	Teaching begins
Week 2	Monday 13 February 2012	
Week 3	Monday 20 February 2012	
Week 4	Monday 27 February 2012	
Week 5	Monday 5 March 2012	
Week 6	Monday 12 March 2012	
Week 7	Monday 19 March 2012	
Vacation	Saturday 24 March 2012	Spring vacation begins - no classes for 2 weeks
Week 8	Monday 9 April 2012	
Week 9	Monday 16 April 2012	
Week 10	Monday 23 April 2012	
Week 11	Monday 30 April 2012	Revision period begins (Saturday 5)
Week 12	Monday 7 May 2012	May Day holiday- no teaching (Monday 7)
Week 13	Monday 14 May 2012	Examinations begin (Saturday 12)
Week 14	Monday 21 May 2012	Examinations end (Thursday 24)
Graduation	Tuesday 19 June 2012 - Friday 22 June 2012	

Resits Week beginning Monday 20 August 2012

***Orientation Week and Reading Week are integral parts of the University semester, and students are expected to devote these periods to their studies. Students are also expected to be available for the entire examination period.**

Key University Contacts

University Switchboard
ASC – student help
ProDean Science

01334 476161
01334 462585/2586
prodeansci@st-andrews.ac.uk

School of Biology Contacts

A full list of the specific roles and interests of individual staff members are available via the School of Biology's website (<http://biology.st-andrews.ac.uk/>).

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Main School roles

Head of School
Deputy Head of School
Director of Research
Director of Teaching
Disability Co-ordinator
Examination Officer/ Assessment Co-ordinator
Admissions Officer
Health and Safety Officer
School President
Secretary to Director of Teaching

Professor Garry Taylor
Professor Mike Ritchie
Professor Malcolm White
Dr Clare Peddie
Dr Clare Peddie
Dr Bill Heitler
Dr Martin Milner
Mr Bernie Precious
Jessica Haghkerdar
Mrs Sandra Dunn
sd6@st-andrews.ac.uk
01334 463602
Ms Louise Bain
lb61@st-andrews.ac.uk
01334 463566

Assistant Teaching Secretary

Year Co-ordinators

1000-level
2000-level
3000-level
4000-level

Dr Anne Smith
Ms Lorna Sibbett
TBC
Dr Gerald Prescott

Contact for reporting Special Circumstances and/or advice on S coding

Dr Clare Peddie

School of Biology Office:

Currently : Rooms 215-218 MBSB; open: 9:00 – 13:00 and 14:00 – 17:00

Pre-Honours Advisors of Studies

Dr Daniel Barker
Dr Roger Griffiths
Dr Gayle Middleton
Dr Martin Milner
Ms Lorna Sibbett
Dr Anne Smith
Prof Chris Todd

Honours Advisors of Studies/Degree Controllers

Animal Biology
Behavioural and Environmental Biology
Behavioural Biology
Biochemistry
Biology
(Replaced by Dr Daniel Barker after advising)
Cell Biology
Ecology and Conservation
Evolutionary Biology
Marine Biology
Molecular Biology
Zoology

Dr David Ferrier
Dr Iain Matthews
Dr Will Cresswell
Dr Rona Ramsay
Dr Sheila Unkles

Dr Judith Sleeman
Dr Will Cresswell
Dr Will Cresswell
Dr Vincent Janik
Dr Rona Ramsay
Dr David Ferrier

Advisors of Studies for Degrees taught jointly with other Schools

Biochemistry with Chemistry	Dr Rona Ramsay
Biology advisor for Biology with Psychology	Prof Keith Sillar
Biology advisor for Biomolecular Sciences	Dr Rona Ramsay
Biology and Economics	Dr Iain Matthews
Biology and Psychology	Prof Keith Sillar
Biology with Languages	Dr Iain Matthews
Biomolecular Sciences	Dr Rona Ramsay
Environmental Biology & Geography	Dr Iain Matthews
Biology & Geosciences	Dr Iain Matthews
Neuroscience	Prof Keith Sillar
Overseas students (Erasmus/Socrates and JSA/JYA)	Dr Iain Matthews

Useful contacts out with the School of Biology

Library: academic queries about science resources	Ms Vicki Cormie
Careers & employability for science students	Ms Pamela Andrews
Maths Support Centre	Dr Katherine Preedy

Contact for reporting absence from examinations
Amanda O'Connell, Examinations Officer
The Old Burgh School, Abbey Walk
Telephone: 01334 462122/462124
Email: examoff@st-andrews.ac.uk

School of Biology Building Information

Medical and Biological Sciences Building

In Semester 1. The central administration of the School of Biology and all Pre-Honours teaching is based around the new **MEDICAL AND BIOLOGICAL SCIENCES BUILDING (MBSB)** on the North Haugh. The Biology Teaching Office and Director of Teaching are located on the first floor of the building; the 1000 and 2000 level teaching laboratories are on the ground floor.

In Semester 2. The central administration of the School is planned to be moving to the Biomolecular Sciences Building. The offices of the Director of Teaching, Head of School and the Teaching Office may all move to this building, we will notify all students of progress in the move.

Carnegie wing of the Bute

The **CARNEGIE WING OF THE BUTE BUILDING**, situated between South Street and Queens Terrace, is where research in the Institute of Behavioural and Neural Sciences is based.

Sir Harold Mitchell Building

The **SIR HAROLD MITCHELL BUILDING** and **DYERS BRAE HOUSE** (collectively termed **HMB**) are in the gardens to the south of Queens Terrace. Research here is on plants and their ecology, and on evolution and molecular genetics. Staff based here will be moving out of this building over the course of this academic year.

Scottish Oceans Institute

The **SCOTTISH OCEANS INSTITUTE (SOI; formerly the Gatty Marine Laboratory)**, on the East Sands beside Albany Park, is a marine research institute. Research takes place on the physiology and ecology of a wide variety of marine organisms. The Sea Mammal Research Unit building is also on this site.

Biomolecular Sciences Building

The **BIOMOLECULAR SCIENCES BUILDING** (commonly known as the **BMS building**) on the North Haugh forms the interface of Biochemistry and Chemistry. This houses research in molecular biology, virology, immunology and protein crystallography.

Library & Study Space

A library facility and study space is available in the JF Allen Sciences Library on the first floor of the Physics Building for the use of all students in Biology, Physics and Medicine. Opening times for the library will be posted on the library door at the beginning of semester.

There is a quiet reading area with tables and comfortable chairs in the middle of the Bell-Pettigrew Museum in the Bute Building.

Science textbooks, monographs and journals are also shelved on Level 4 of the main University Library.

For further information on use of the University Library and Information Services, please see <http://www.st-andrews.ac.uk/library/>

Both the main University Library and JF Allen Library have their collections fully catalogued on the online SAULCAT reference system.

Museum

The **Bell-Pettigrew Zoological Museum** (<http://biology.st-andrews.ac.uk/bellpet/>) in the Bute Building contains a wide range of exhibits showing the diversity of the animal kingdom, and is used in several practical classes. The museum has wireless internet access and is available for use as a reading room during working hours.

Modules

Enrolment for modules and laboratory/field fees

All students are required to pre-advise through the Student Portal (<http://portal.st-andrews.ac.uk/>), and will see their Adviser of Studies at the beginning of each session.

All students who wish to study 1000 or 2000-level Biology modules must fill in a registration form and pay a laboratory fee **through the on-line shop**.

You should enrol in the Biology Teaching Lab (Room 142) in the MBSB on either Tuesday or Wednesday of pre-sessional week, after you have seen your Adviser of Studies.

At 3000-level, the field course BL3000 also attracts a fee. At 4000-level, your project studies are heavily supported by the School of Biology. There are also available optional field courses that do attract fees at cost.

The School of Biology website has a Degree Programme Designer and Module Browser which gives more details on how to construct your studies.

1000-level Modules

There are two 1000-level modules in Biology introducing you to the fundamentals of biology. Previous knowledge of biology is not required these modules but you will be required to draw on your knowledge of the basic sciences. University regulations allow you to enter the University with passes that do not include biology, although you must have done sufficient chemistry, physics and mathematics.

These modules are taught in the following semesters:

Semester 1	Semester 2
Biology I BL1101 Dr V. Anne Smith	Biology II BL1102 Dr I. Matthews

Passes in BL1101 and BL1102 are required for entry to the 2000-level modules in Biology.

All students pursuing a degree programme within the School of Biology must pass both of these modules, thus acquiring 40 credits of 1000 level Biology.

Full details (including credit weighting, class hour, assessment method and description) of all biology (BL) modules can be found in the on-line course catalogue:

<http://www.st-andrews.ac.uk/students/academic/Coursecatalogue/>

2000-level Modules

There are **five** 2000-level modules in Biology. Science students may take **any two** together in one semester as part of their degree, since the timetables are compatible; Arts students may take only one in any one semester. Science students therefore normally study **four** 2000 level modules in total, worth 30 credits each, which together give 120 credits.

These modules are taught in the following sequence:

Semester 1	Semester 2
<p>Cell Structure and Function (BL2101) Ms Lorna Sibbett</p> <p>Zoology (BL2102) Dr Bill Heitler</p>	<p>Biochemistry & Molecular Biology (BL2104) Dr John Ingledeew</p> <p>Ecology & Evolution (BL2105) Prof. Mike Ritchie</p> <p>Comparative Physiology (BL2106) Dr Gerald Prescott</p>

Lecture times of Biology 2000 level modules

9 a.m.	Cell Structure and Function	Semester 1; Mon-Fri
	Biochemistry & Molecular Biology	Semester 2; Mon-Fri
11 a.m.	Zoology	Semester 1; Mon-Fri
	Ecology & Evolution	Semester 2; Mon-Fri
12 noon	Comparative Physiology	Semester 2; Mon-Fri

All students studying for degrees offered within the School of Biology must also attend our **Skills for Biologists** training which runs in both semester 1 & 2 and is organised by Ms L. Sibbett. There is a lecture programme (on Mondays at 10am, and repeated again at 1pm) and fortnightly workshop (2:00pm, Tues, Wed or Thurs). This training is compulsory and all students taking 2000-level Biology modules will automatically be contacted and given details as to how enrol.

When you select your 2000-level modules, keep in mind the programme prerequisites for specific Honours degrees. The School of Biology offers a variety of single Honours and Joint Honours degrees, and a number of Joint Honours degrees combining Honours modules taught by the School of Biology with modules taught in other Schools.

The Degree programmes and their programme prerequisites can be found on the online course catalogue. Candidates for Honours degrees should note that some Honours modules also have specific entrance requirements - see the course catalogue and talk to your Adviser.

3000-level Modules

School of Biology Enrolment for classes and laboratory fees

All students are required to pre-advise through the Student Portal (<http://portal.st-andrews.ac.uk/>), and will see their advisor of studies at the beginning of each session.

All Junior Honours students must pay a laboratory fee of £10, to cover the whole year. If you have any questions about the laboratory fees or arrangements please contact Danny Speight, Honours Teaching Technician who is based in the office next door to the Biology Teaching lab.

All students entering Honours in the School are required to take the BL3320 Practical Statistics in Biology module; please make sure you pre-advise into this module in May along with your other core 3000 level modules for your degree programme.

Students intending to enter Honours in any of our 'red' degrees (or taking certain 3000-level modules) should attend a Radiation Protection course. This is run during the pre-sessional week and details will be sent out with offers of Honours places.

Students intending to enter Honours in any of our 'green' degrees, (roughly defined as those which include BL3308 and BL3309), will be required to attend a field course BL3000 during the summer. Work on this course will be assessed and will count towards your degree. Students must therefore plan to attend for the full week. Full details of dates, cost, travel arrangements etc. will be posted.

For those degree courses in which choice of modules is allowed, your Degree Controller/ Adviser and/or the Director of Teaching must approve your choice.

Once your choice of course has been approved and accepted, any change in the sequence of modules that you take would require the specific approval of the Director of Teaching. You would also need to complete a transfer form available from the Teaching Office and follow the appropriate Senate regulations.

Semester 1

These modules may be taken in any combination, but students must check practical days.

BL3301
PROTEIN STRUCTURE &
FUNCTION
Dr U. Schwarz-Linek

BL3302
GENE REGULATION
Dr S. Unkles

BL3303
MEMBRANES AND CELL
COMMUNICATION
Dr R. Ramsay

BL 3306
ENVIRONMENTAL PHYSIOLOGY
Dr Gerald Prescott

BL3308
AQUATIC ECOLOGY
Dr I. Matthews

BL3307
EVOLUTION
Prof. T. Meagher

Semester 2

There should be no lecture clashes but practical classes for the two modules in each block may run concurrently. Only one module from each block can be taken (NB. Honours Advisors may, in consultation with the Director of Teaching, allow any student to take one or two modules per year outwith their normal programme specification, possibly including modules from other Schools).

METABOLISM & BIOENERGETICS BL3310 Dr J. Ingledew	INFECTION AND DISEASE BL3311 Dr P. Coote	PHARMACOLOGY BL3312 Prof K. Sillar	NEUROSCIENCE BL3313 Dr F. Gunn-Moore	DEVELOPMENTAL BIOLOGY BL3315 Dr M. Milner
ANIMAL BEHAVIOUR BL3319 Prof. K. Laland	BIOLOGY OF MARINE ORGANISMS BL3318 Profs. P Hammond & C. Todd	ECOSYSTEMS AND CONSERVATION BL3309 Dr W. Cresswell	ANIMAL-PLANT INTERACTIONS BL3316 Dr J. Wishart	

4000-level Modules

All 4000-level Biology modules (apart from the project modules) are worth 15 credits. Students must either enrol for BL4201 (Research Project) and FOUR 15 credit modules or, BL4200 (Literature Project) and FIVE 15 credit modules. The selection and allocation of projects is carried out towards the end of semester 2 of your JH year. More details will be given closer to the time, but it is wise to start thinking about areas of interest as you proceed through your JH year.

Where there are choices between modules in the programmes detailed in the course catalogue, some options may have pre-requisites so that the Pre-honours or JH modules taken may limit choices.

The availability of 4000-level modules in the School of Biology will be dependent on sufficient student demand.

Student Code of Conduct

Expectations of students

- It is expected that you attend all of the lectures given in the module. Lecturers cannot be expected to reteach material taught in lectures. It is clear to School of Biology staff that non-attendance at lectures leads to poor performance in examinations.
- It is expected for students to have all electronic devices set to silent and non-vibrate whilst in class.
- Laptops are permitted in taught classes (lectures, tutorials and practical classes) for taking notes and gaining access to material directly relevant to the lecture ONLY.
- It is expected that you check your e-mails at least every 48 hours and engage with the MMS and Moodle (if appropriate) sites for your modules.
- If you are late for a lecture, please enter as quietly as possible (by the rear door if possible), it is respectful to apologise for your lateness at the end of the lecture.

- If you are late for a lecture, please enter as quietly as possible (by the rear door if possible), it is respectful to apologise for your lateness at the end of the lecture.
- It is expected that you fully engage with all activities (both assessed and non-assessed) as part of your learning experience.
- It is expected that you will let someone know (Adviser of Studies or Director of Teaching or Module Organiser) in the School of Biology if you are having problems that are affecting your academic studies. The sooner we know about any issues the sooner we can do something to help. It is difficult to make allowances retrospectively.
- It is expected that, whilst we often encourage open discussion between students about your work, that you do not make available your work or the work of others to fellow students in electronic format e.g. on a data stick or left on a public/shared desktop. To do so, puts temptation to commit academic misconduct in front of your peers, and can in itself constitute academic misconduct. If you are in any doubt about the appropriateness of your actions ASK.

Recording Devices in Lectures

If you have a disability or some medical condition that means that you are unable to take notes in lectures, you may seek permission from Student Services to use a voice recorder or other computer-based device to record lectures and/or tutorials. If you are not authorised by Student Services to record lectures then you must request permission from the relevant academic member of staff by e-mailing prior to the lecture-taking place. More information is available at:-

www.st-andrews.ac.uk/staff/policy/tlac/miscellaneous/

Communications

Many module organisers use e-mail to contact you so please check this regularly.

Students are required by University regulations to check email every 48 hours during the week as email is recognised as an official means of communication within the University.

There will be regular e-mail updates on general student matters from the Biology Teaching Office, we will try to keep these to a maximum of once per week.

When emailing a member of staff, please include your full name and matriculation number.

All modules will have an MMS site where updates on module arrangements and lecture outlines/handouts will be posted. Check these sites regularly.

Absence from classes

Attendance is a basic assessment requirement for credit award, and failure to attend classes or meetings with academic staff may result in the issuing of an Academic Alert, which may result in a 0X grade for the module if non-attendance is not rectified (see below and the University

Student Handbook for details). At University you should seek to arrange your life around your studies, and not vice versa.

Compulsory classes

In the School of Biology students should note that the compulsory module elements are practical classes, seminars and tutorials and any additional sessions stipulated by the module organiser in the module booklet or by e-mail. In the context of the 4000-level modules, ALL meetings of the class are compulsory.

Self-certification

If you have missed timetabled classes/events or any other compulsory elements of the module due to illness or an unavoidable pre-arranged event or appointment, you must complete a Self Certificate of Absence form (through e-Vision) within three days. This is available at

https://e-vision.st-andrews.ac.uk/urd/sits.urd/run/siw_lgn

Under certain circumstances, Schools may request further documentation in addition to the Self Certificate. In this case, students should contact Student Services in order to organise the appropriate documentation.

If you submit more than three Self Certificates in a single semester, or if the period of absence extends to fifteen working days, you may be contacted by Student Services, the relevant Pro Dean, or by an appropriate member of staff in your School.

Completion of a Self Certificate is not an acceptable substitute for contacting your lecturers or tutors well in advance if you have to be absent. Advance notice of absence is acceptable only for good reason (for example, a hospital appointment or job interview). **It is your responsibility to contact the appropriate member of staff as soon as possible to complete any remedial work necessary or arrange an alternative assessment.**

If you are an international student (non-EEA nationals only), you will be affected by recent changes introduced by the UK in relation to immigration rules and visas. The University is now legally bound to report to the United Kingdom Borders Agency any student who fails to enrol on a module or programme of study or who fails to attend or who discontinues their studies.

Further information is available from the following links:-

<http://www.st-andrews.ac.uk/students/safety/InternationalStudents/PointsBasedSystem/>

<http://www.st-andrews.ac.uk/admissions/int/Immigrationadvice/>

Academic Flexibility for Students with Recognised Sporting Talent

There is a policy which allows allow eligible students (with the permission of the School and Sports Performance Manager) to have time off from their studies in order to participate in key sporting tournaments and competitions. Further information is available from Debby Sargent, Department of Sport and Exercise (email dls4) or see the policy www.st-andrews.ac.uk/staff/policy/tlac/attendance/sportspeople/

Absence from Examinations

Absence from Examinations due to illness or any other unavoidable reason should be reported IMMEDIATELY you know you will be unable to sit an examination to the University Examinations Officer by telephone (01334) 462124 or 462528. This should then be followed up by an appropriate Self Certificate as soon as you are in a position to access a computer. Normally the School of Biology will also request a medical letter if you are absent from Degree examinations.

As soon as you are well enough you should contact the School of Biology Teaching Office (sd6@st-andrews.ac.uk) to make arrangements for an alternative or deferred assessment to be completed at the earliest opportunity; the timing for this examination is at the discretion of the Director of Teaching, and so it is imperative that you contact the Teaching Office as soon as you are able.

Special circumstances affecting your academic studies - "S" Code

"S" Coding is the method the University uses to recognise that special circumstances have affected performance in the modules concerned. "S" coding may only be applied to honours or taught postgraduate modules (excluding taught postgraduate project or dissertation modules). "S" coding may only be applied as a result of, and with the explicit consent of the student and with the approval of the School. The final decision to "S" code a module grade rests with the School. You should be aware that a maximum of 25% of the overall honours credits required or 50% of the taught element of a postgraduate award may be "S" coded. Masters dissertations may not be "S" coded.

If you feel that most or all of the work of a module has been adversely affected by personal circumstances during your final junior and senior honours years or during the taught modules of a taught postgraduate programme you should contact the Director of Teaching (biodot@st-andrews.ac.uk) in the first instance indicating the circumstances of the difficulty experienced.

This may relate to ongoing illness, close family bereavement of other significant personal difficulties.

You must bring this information to the attention of the School as soon as possible as there are a number of ways to deal with such situations, "S" coding being the final option. It may be possible (and it is viewed as preferable) to arrange deferred assessments or extended submission dates rather than applying "S" to the entire module. However it should be noted that if such arrangements are made, (extensions or deferred assessments etc.), it is unlikely that you will also be entitled to have the module "S" coded as well.

Further information on the University's Policy and Procedures on Special Circumstances can be found at:

<http://foi.st-andrews.ac.uk/staff/policy/tlac/examinations/s-code/>
www.st-andrews.ac.uk/staff/policy/tlac/examinations/procedures/s-code/

Academic Alert

The School will communicate any concerns that it may have about your academic performance through an "Academic Alert". An Academic Alert takes the form of an e-mail sent to you from the Module Organiser. This will be very clearly identified as a formal Academic Alert and should not be confused with a simple e-mail reminder about a deadline, or a piece of informal advice. The Alert will specify the nature of the perceived problem, the action(s) that you should take to remedy the situation, the support that is available to help you solve the problem, and the likely consequences if you fail to take the appropriate action. It is up to you to take the action specified in the Alert.

The Alert will be copied to relevant support staff such as your Advisor of Study and the Registry, but it will not appear in any permanent record of your performance. The Alert does not in itself result in any grade penalty, but it may itemise reasons why a grade or other penalty is being imposed, such as late- or non-submission of compulsory work.

Academic Alerts come in various categories (see the Academic Alert policy available on the University website – it's your responsibility to familiarise yourself with this policy). Categories 6 and 7 deal with extended unauthorised absence from classes, and are likely to require you to meet with your advisor or the Pro-Dean to discuss the situation. Categories 8 - 10 deal with failure to submit compulsory work or to attend compulsory classes. Categories 8 and 9 are warnings, and require IMMEDIATE action on your part to avoid serious consequences. A category 10 alert is the most serious alert of all because it states that you will receive a grade 0 for the module and will receive no credit for the module. This is obviously a very serious matter, and it would normally only be issued if you failed to respond to earlier warnings.

If you receive a category 10 alert, you have one week in which to appeal to the Module Organiser. Such an appeal is only likely to be successful if you present additional evidence of extenuating circumstances. If this evidence is of a sensitive or confidential nature you can communicate it directly to the Head of School, who will only reveal it to authorised senior staff. If the Module Organiser rejects your appeal, you can appeal to the Head of School, and/or directly to the Module Board, but again, you will need to present convincing evidence of extenuating circumstances. If you receive a category 10 alert you may, if you wish, continue attending module classes and you may sit any module tests or exams. The School will retain your work, but is under no obligation to mark it or to give you feedback on it until and unless you make a successful appeal and the penalty is rescinded.

Obviously, the vast majority of students will never receive an alert of this nature throughout their academic careers so you should not worry overmuch about them. As always, if problems start to arise it is better by far to acknowledge them and to seek support before matters get to that state.

The system is designed to help and support students in order to remedy any problems or issues before these lead to failing a module. Alerts will never appear on a student's permanent transcript. For more information on Academic Alerts and details on how the categories work, see www.st-andrews.ac.uk/staff/policy/tlac/attendance/academicalerts/

To clarify, within the School of Biology:

Absence, without good reason, from compulsory components of the class (all practical classes, all tutorials and any other scheduled classes noted as compulsory in the Module Handbook) will result in the issuing of an Academic Alert. Further, all coursework associated with a class must be completed and submitted by its due date. Late submission, without good reason, will incur a fixed mark/grade penalty which will increase each day that the work remains overdue. Non-submission of coursework (coursework overdue by more than 10 working days), or submission of coursework of unacceptable standard, will also be considered to be grounds for issuing an Academic Alert. Within the School of Biology **three** such absences or (non)submissions **will** result in a category 10 alert.

Assessment

Passing the module

At **1000 and 2000 level** you are required to achieve \geq Grade 4 in the continuous assessment, \geq Grade 4 in the degree examination and \geq Grade 7 overall to pass the module.

At the resits, the CA mark will be used with the resit examination mark to calculate the grade for the module *unless* there are extenuating or unusual circumstances. Please contact the Director of Teaching if you feel this might apply to you.

At Honours (3 & 4000-level you) are required to achieve \geq Grade 7 overall to pass the module.

Continuous Assessment

All continuous assessment work should be submitted bearing only your matriculation number, not your name.

Pre-Honours

At Pre-Honours, the continuous assessment component of the module will consist of no more than FIVE items. All items must be submitted in order to fulfill the requirements of the module.

At Pre-Honours the marks for each item of continuous assessment (CA) are recorded as grades on the 20-grade point common reporting scale. Each student's marks are averaged to generate their final continuous assessment mark for the module. Any items of work for which an appropriate self-certificate has been presented *may be* discounted, up to a total maximum of 20% of the continuous assessment but this can only happen at the discretion of the module organiser. Note however, that the module organiser has the right to ask for the completion of an alternative assessment to make up for the missed work. If you do not have the permission of the module organiser to be excused a piece of assigned work then you will be given a 0 grade for that piece of work – it is your responsibility to communicate efficiently and effectively with academic members of staff to ensure that you fulfill the requirements of the module. The examination essay scripts are also marked in percentages.

All grades can be subject to final mapping at the Module Board should the External Examiner request it, and students should be aware that whilst the reported percentage is a good indication of performance it may still be subject to modification.

Junior Honours

At Junior Honours level a maximum of **TWO** Continuous Assessment marks should be generated on the 20-grade point scale. The final CA mark is the weighted mean of these grades. The marks for each item of work will be recorded as a whole grade point whilst the mean CA mark is recorded to one decimal grade point. All items must be submitted in order to fulfill the requirements of the module. You cannot be excused any piece of continuous assessment work at Honours level; if you are ill or absent from class then you must complete an alternative assessment set by the module organiser, or appropriate member of staff.

The examination scripts are marked to one whole grade point.

The final module grade is 34% Continuous Assessment and 66% from the examination and this final grade is reported to the University to one decimal grade point.

NB. Because practical work will also have to be handed in you should prepare your formal practical write-ups in loose leaf form and only use bound laboratory books for day-to-day working, so that you do not have to do without them while your practical classes are being marked.

Please note that attendance at **practical classes** is **essential and compulsory**. This includes all field visits and outings arranged as part of the module. You may lose marks for the module for non-attendance, even if a visit or outing is not formally assessed.

At the end of each module there will normally be at least one hour of 'surgery tutorial' when you can ask questions or seek further guidance on course-related assessments or material.

Senior Honours

There is no set format for the assessment of Senior Honours modules. Some SH module grades will be determined by CA only, whilst some modules may include a class test that may be held under exam conditions. As in JH you cannot be excused any piece of assessment work at SH level; if you are ill or absent from class then you must complete an alternative assessment set by the module organiser, or appropriate member of staff.

Referencing

The reference style you should use for all pieces of work completed for the School of Biology is the **Harvard Referencing system**. If you're unsure of what the nuances of this system are then there are very good guides available online.

Turnitin

Some components of the CA and all essays will be screened by the University's electronic plagiarism detection system through electronic submission on MMS – the module organiser will let you know which assignments you need to do this for, and will also explain how you submit an e-version of the assignment in this way.

Academic Misconduct

Academic integrity is fundamental to the values promoted by the University. It is important that all students are judged on their ability, and no student will be allowed unfairly to take an advantage over others, to affect the security and integrity of the assessment process, or to diminish the reliability and quality of a University of St Andrews degree.

Academic misconduct includes the presentation of material as one's own when it is not one's own; the presentation of material whose provenance is academically inappropriate; and academically inappropriate behaviour in an examination or class test. Any work that is submitted for feedback and evaluation is liable for consideration under the University's Academic Misconduct policy irrespective of whether it carries credit towards your degree. All work submitted by students is expected to represent good academic practice.

You should be aware that the University takes academic misconduct offences extremely seriously and any student found guilty of a repeat offence may be expelled from the University either temporarily or on a permanent basis.

The University's Academic Misconduct policy covers the behaviour of both undergraduate and postgraduate students.

All students are advised to familiarise themselves with the University's Guide to students called "Avoiding Academic Misconduct" which may be accessed from: <http://www.st-andrews.ac.uk/students/policy/academicmisconduct> or from the Students Association's publication "Don't Get it Wrong": (http://yourunion.net/files/dont_get_it_wrong.pdf).

The full University policy and procedure is also available from: <http://www.st-andrews.ac.uk/students/policy/academicmisconduct/>.

Students who are unsure about the correct presentation of academic material should approach their tutors, and may also contact SALTIRE (June.Knowles@st-andrews.ac.uk) for training.

Avoiding Academic misconduct

In addition to the advice given online the School of Biology would like to highlight that:

1. In the process of writing NEVER EVER be tempted to cut and paste information or text from other documents or webpages into your work – even if the intention is to rewrite it in your own words later. There is a real risk that you forget to do so or forget which bits of the document are your own words or those of another writer.
2. NEVER share your work (data analysis, excel spreadsheets, or word documents) electronically with a fellow student. A student giving work in this way is just as guilty of academic misconduct as a student using the work. Protect your work, never leave it on desktops of shared computers and guard data sticks with extreme care.

Submission of Coursework

All coursework that requires assessment must be deposited in the location stated by the module organiser (e.g. the appropriately labeled section of the Honours post box by the

Teaching Office in the MBSB, or one of the demonstrator's boxes outside of the teaching laboratories). Students must also submit the work in the correct format (if a paper copy is required then an e-copy is not acceptable). Make sure you know the deadline for each piece of work. In addition make sure all work handed in is clearly labelled with your matriculation number, module code, assignment title on it, and the name of the module organiser. Clear deadlines for the submission date and time will be given in the relevant course literature. All late submissions of coursework should be made via the **late submissions box** in the MBSB (beside the Teaching Office).

Penalties for late submission

If work is submitted late, there will be strict penalty applied of 1 grade point per working day.

For submission of written work this penalty does not apply to Saturdays and Sundays.

However, in the context of electronic submission of assessed work, every day of the week will be considered as counting towards a late penalty. This rule will apply to all holidays (public and University) and includes weekends, with Saturday and Sunday each counting as one day.

It is YOUR responsibility to submit the late work in the late submissions box outside the Teaching Office in the MBSB on the North Haugh. You must state that it is a late submission and make clear which module the work relates to. If your work is late due to illness or exceptional circumstances, then you must provide a self-certificate explaining the reasons, and by so doing the normal penalties may not be applied. You must also endeavour to contact the module organiser before the submission deadline to explain the reason for lateness. The Faculty Office will keep a record of all self-certificates, and more than two submissions may be followed up by the Director of Teaching or Student Services. You may be asked to provide more formal certification if you have a record of frequent self-certification - so please do not abuse the system.

Extensions

Extensions can ONLY be granted on the grounds of ill health or special circumstances (and in all cases should be requested before the deadline, not after). If granted there is no grade point penalty. You must contact the Module Organiser or the Director of Teaching stating the reason for the request for an extension. If you are in any doubt, contact the Director of Teaching regarding the delay to your studies as soon as you can.

Language Correction

If you have received any help with your coursework (e.g. proof reading or language correction) you are now required to explicitly acknowledge that help in the following signed declaration at the front of the submitted work:

I, [INSERT MATRICULATION NUMBER], received particular assistance in the writing of this work in respect of matters of grammar, style, vocabulary, spelling or punctuation.

The assistance was provided by (delete as appropriate):

- A member of the Academic Staff
- A non-academic member of Staff
- A fellow Student

(If you have a registered disability with an allowance for a proof-reader then please check with Student Services as to how the above policy applies to you).

Suspected use of non-permissible types of adjustment will be treated as plagiarism

(See Policy on Language Correction online for more details)

Word limits

In the School of Biology, students are permitted to submit within 10% of the word limit ascribed to a piece of work. Thereafter, the marker may deduct 1 grade point for each complete 10% over the word limit.

Printing and Binding

The University's Print & Design Unit is ideally set up to print and/or bind your dissertation and thesis. You can send your material in PDF format (with a note of pages to be printed in colour) to: printanddesign@st-andrews.ac.uk and then they will be in touch when your job is ready. Price lists and further information: www.st-andrews.ac.uk/printanddesign/

Return of Coursework

Staff are asked to return all grades to students within 15 working days of its submission.

Students should be able to receive routine feedback on any work that they have submitted. Feedback will give you advice that will guide you in improving your learning and future performance. Feedback opportunities vary from school to school but can include individual face-to-face discussion, written commentaries on work or electronic feedback for example through MMS or Moodle.

Assessing your Progress

As well as giving you comments, staff assess each piece of coursework in terms of the University's 20-point grading system. This gives you some idea of your standard, but be careful to interpret the grades cautiously. It is easier to do well in coursework than in exams; a string of good course marks does not necessarily mean that you are heading for an equally good module grade. Please make sure that you collect your graded work once you've been prompted to do so as it is important to read the feedback on your work so that you can then find out where you went wrong, and what you did well, so that you can build on that knowledge as you continue through the module, and the School.

You must see your Adviser of Studies at the start of each academic year to discuss your work in the previous year, any problems that have arisen, and your plans for after you graduate. In particular, your Adviser of Studies at Honours (the Degree Controller) is your main point of contact with the staff in Honours and it is important that he or she gets to know you and your work well, to be able to write references for you when you apply for jobs or other postgraduate positions.

You will be assessed by written examinations at the end of EACH SEMESTER (see below). This will provide you with further feedback on your progress.

Common Reporting Scale (20-point)

The University uses a 20-point Common Reporting Scale for grades (ie a 20-point basic scale reported to one decimal point for final module grades). Details of the Common Reporting Scale can be found at: www.st-andrews.ac.uk/staff/policy/tlac/examinations/commonreportingscale/

Examinations

Each of the modules that you take will be assessed by continuous assessment and a degree examination at the end of the semester in which the module is taught. If you satisfactorily complete the work of the module you will receive the credits, which will accumulate towards your degree. You will also receive a classification of the quality of the work that you have achieved on the module, which will be in the form of the 20-point grade system.

Exam format

1000-level courses

At 1000-level the examinations take the format of **TEN** one-page questions (2 hours) of which the student should take **EIGHT**. Each question is equally weighted.

2000-level courses

At 2000 level papers consist of two sections.

Section A should ask the student to complete **TWO** essay questions from a choice of six essays (2 hours accounting for **two-thirds** of the marks). Module organisers may choose to allocate the six choices into two groups to ensure the students answer from a range of topics

Section B will contain **SIX** short answer questions that are compulsory (although there may be a choice within individual questions) (1 hour accounting for **one-third** of the marks).

This enables module organisers to include an element of choice whilst requiring students to revise all of the taught material.

3000-level courses

The paper will consist of three sections. Sections A and B will each contain two essay questions from which the students must answer one in each in section. Section C will contain two numerical/ deductive questions from which the students must answer one.

Each question carries equal weight.

4000-level courses

The wide variety of assessment methods demands flexibility in exam format. These formats will be reviewed by the Teaching Committee.

Past Exam Papers

Note that past exam papers are no longer available in the University Library's Website – they are now only available through iSaint: see:-

www.st-andrews.ac.uk/students/academic/Examinations/pastpapers/

Illegible Exam Scripts

It is your responsibility to ensure that your handwritten answers provided in examination scripts are legible and can be read by the markers. If a script cannot be read by the marker then this could result in a delay in confirming your module grade. You may be charged for a transcription service and could be required to return to the School(s) concerned in order to transcribe the script. If you have already left St Andrews then you will have to bear the costs of any return travel to the University. More information is available at:- www.st-andrews.ac.uk/staff/policy/tlac/examinations/

Illness

It is quite normal to feel stressed before exams, and this can lead to symptoms such as headache, queasy stomach, poor sleep etc. It is best not to worry too much about this – remember that many of your classmates will have the same problem, and it is very unlikely to affect your performance once you actually start. If things are more serious than that, then contact Student Services who are running support sessions for students experiencing significant exam anxiety.

If you are genuinely too ill to sit the exam on the set date, or if a non-medical but serious incident prevents this, then you can apply to have your exam deferred. However, deferral is a serious issue; it is NOT automatically granted, and might only be allowed if you can produce medical or other external documentation to support your case. Deferred exams are sat either at the end of the current exam diet, or in the September re-assessment diet, depending on the time scale of the cause of the deferral.

The procedure if you expect to miss an exam and wish to defer is 1) immediately contact the School Teaching Office by phone ((01334) 463602 or e-mail (sd6@st-andrews.ac.uk), 2) inform

the University Examinations Office by phone ((01334) 462124 or 462528), 3) fill in a self-certificate, 4) organize the production of the necessary external documentation to support your case.

If you intend to sit the exam but feel your performance is likely to be seriously affected by circumstances beyond your control, then at Honours level you can apply for an S-code for the module or semester, and at Pre-Honours level you can inform the Teaching Office by e-mail, so that your circumstances can be taken into account. External documentation may be required in either case. You should always take this action BEFORE you sit the exam, since it is not intended as a remedy for simple poor exam performance. If you notify the School of an issue after the event it is VERY unlikely that it will be taken into account without exceptional justification. You can, of course, at any time seek advice from Student Support Services or a member of the School staff.

Calculators

You are expected to provide your own calculator for any exam in which it might be needed (or even useful). Your calculator should have the standard scientific functions (and, of course, you should know how to use these). The university does not allow programmable or graphical calculators, so if you have any doubt about whether yours is suitable, please check with the Teaching Office in advance.

Graphs and Diagrams

You are advised to take a pencil and ruler and a small set of coloured pens/pencils with you to each exam in case you need to draw a graph or diagram. If a graph or diagram is specifically required by the question, then you should assume that marks will be given for neatness and clarity. However, even if not specifically required, many (arguably most) answers can be improved by including one or more appropriate diagrams.

The Usual Stuff

The usual exam advice applies. Always read the question carefully and make sure that you answer all aspects of it. If you have an hour to answer a question, it is sensible to spend a few minutes thinking and planning, before you actually start writing the answer. Organization and structure are amongst the criteria for which marks are awarded, so planning time is definitely not wasted time. ALWAYS attempt every question that you are required to answer; a sure-fire way to receive zero is to write nothing. Even very brief and incomplete answers will usually gain you a few marks, which will be better for your average than a big fat zero. If you answer *more* than the required number of questions, we will mark them all and give you the highest marks compatible with any question paper sectioning – but I don't recommend this as a strategy.

Feedback on examinations

Feedback on examination performance can be given to a class as a whole or if you wish detailed feedback from a member of academic staff on an examination script, you should contact your School to arrange a suitable time. No fee is charged for this type of feedback. You can also ask to see your marked degree examination paper, to do so you have to contact the module organiser *within the first 2 weeks* of the following semester to set up a meeting.

Students are however also entitled to request a hard copy of any of their own completed examination scripts. If a photocopy of the script is required for personal reference, please contact your School and, on payment of a fee of £10 per examination script, a photocopy will be provided for you within five working days. Such requests should be made by the end of Week 3 of the semester that follows the examination diet.

Reassessment of failed modules.

Reassessment of a failed module is permitted if the grade awarded is between 4 and 6.9 (inclusive). Grades reported of less than 4 do not allow you to take a resit and the module (or a substitute module) must be retaken in its entirety the following year.

1000-level & 2000-level

Reassessment of 1000 and 2000-level modules is by examination in the resit diet. The continuous assessment grade is included as 50% of the module grade. Exceptionally, the Continuous Assessment grade may be discounted at the discretion of the Director of Teaching and in consultation with the External Examiner.

3000-level & 4000-level

Reassessment of Honours level modules is by arrangement with the Director of Teaching and at the discretion of the Examination Board. Where examinations are involved, reassessment normally involves a resit of the examination.

Progression

Progression to 2000-level

Progression from 1000-level to 2000-level Biology is dependent on **passing both BL1101 and BL1102** and gaining 80 credits in the year. Students who fail to achieve 80 credits will fall under the Termination of Studies policy.

Progression: Pre-Honours to Honours

Entry to the Honours programme is automatically granted for students gaining at least grade 11 in TWO of the PRE-REQUISITE 2000-level modules for your degree programme.

To find out which modules are prerequisite for a specific degree programme, please consult the Course Catalogue. A grade 11 in any two 2000-level Biology modules grants entry to the Biology degree programme.

Those who, at their first attempt, earn a minimum aggregate of 35 grade points from 2000-level Biology modules or those who fail to achieve either of these thresholds by a narrow margin MAY still be offered places. The decision will be taken by the Teaching Committee after the degree examinations and will be based on all the information at its disposal, including reports from module organisers in second year, coursework and, where relevant, medical information.

If you have any reason to believe that your work may have been prejudiced for medical reasons or through related personal difficulties, either during the year or at the time of the examinations please submit self certification. For work or exams affected at the end of second year you must let us know before leaving St Andrews, and return it to the Teaching Office, so that we can seek medical evidence if necessary. It is YOUR responsibility to ensure that we know about any circumstances you wish to be taken in to account.

Students whose performance in the degree examinations of modules prerequisite for their Honours course is adequate, but who failed in another module, may be made an offer of entry to Honours conditional on passing in that other subject at the reassessment diet.

However, no student will be admitted to Honours on the basis of their performance at reassessment in a prerequisite subject, except where there is good reason to believe that their results in that subject earlier in the year were affected for documented medical or personal reasons.

Students given a conditional place in Honours but who then do not obtain the necessary credits in 1000-level modules and 2000-level modules by September will not be admitted to Honours. Pre-Honours modules cannot normally be 'carried' into Honours years.

What if I don't get in to Honours?

Hopefully you will be successful in securing a place in Honours in the School of your choice. However, you may not have prerequisites for other disciplines or you may be committed to progressing in Biology.

(1) If you have failed modules (i.e. you have less than 240 credits, or less than 80 2000-level credits) the School of Biology will not normally allow you to enter Honours programmes or modules (i.e. we do not normally permit students to trail credits into Junior Honours). If you are short of credits you will be registered as a General degree student and will have to make

these up to required levels before being permitted to attempt 3000-level modules to complete your General degree programme.

(2) If you have enough credits, but low grades, you will be permitted to register for 3000-level modules but as a General degree student (i.e. you will not be formally admitted to an Honours programme).

Notwithstanding the above comments any student who fails to gain immediate entry to Honours and who has completed no more than two years of full-time study at PreHonours level may elect to repeat second year (you should be aware that this may have significant implications for your funding as not all Local Education Authorities will pay fees for repeat years or will alternatively limit fee payments to four-years in total for your degree programme).

As students cannot retake subjects they have already passed they often have to aim at a different Honours programme.

It is sometimes possible to secure an Honours place after one further semester of study at 2000-level and then take leave of absence for the remainder of the repeat year. Repeating some or all of second year and extending your studies in this way may be the only potential route into Honours available, and you are urged to discuss this with your Adviser, or the Director of Teaching at an early stage.

Progression: Junior Honours to Senior Honours

Your performance during the Junior Honours year will be monitored, and in order to progress to the Senior Honours year you must achieve full credits on all of the modules that you take and pass the modules at a sufficient standard to progress to the Senior Honours year. If, for any reason, we are concerned about your progress during your Honours years it is possible that we will ask you to attend an oral examination with the relevant External Examiner. You will be notified of this in advance, usually when the semester examinations have been completed. For this reason it is essential that you are available during the last week of Semester 2, and that your Advisor of Studies has your local address and telephone number where you can be contacted. Students who do not make sufficient progress during their Junior Honours year may not be allowed entry into Senior Honours.

If you fail to achieve this standard you may have nevertheless achieved enough credits to obtain a General degree at the end of your third year of study.

Degree Regulations

A regulatory structure determined by Senate and Court governs the award of all degrees.

Undergraduate and **Postgraduate** Resolutions and Regulations are online at: www.st-andrews.ac.uk/students/rules or www.st-andrews.ac.uk/pgstudents/rules

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For alternative formats:

Nicola Milton, Proctor's Office, College Gate, North Street

Telephone: 01334 462131

Email: nam6@st-andrews.ac.uk

Honours Classification

The University applies a common formula for the calculation of the award of Honours classifications. Degrees are classified using a credit-weighted calculation of grades achieved for Honours-level modules (3000 level and above). This ensures consistency, particularly if you are taking a joint degree. Full details of the University's Honours Classification algorithm can be found at: www.st-andrews.ac.uk/staff/policy/tlac/examinations/classification/

There are no discretionary classification border zones and only one decimal point is used in calculations of means and medians. There is an opportunity for Schools to present cases to the University's Special Classification Board where the final classification has been affected by S-coding of modules for personal or medical reasons.

Deans' List

This is an annual award for academic excellence, promoted by the four Deans of the University. Undergraduate students who achieve an outstanding overall result in the course of an academic year have their names inscribed on the Deans' List, an honour which will also appear on your University transcript. The criteria for the award are strict. Only students taking no fewer than 120 credits counting towards an approved degree programme over the course of an academic year will be eligible and all credits have to be taken within the four Faculties of the University of St Andrews. Study abroad is excluded from the scheme, although incoming students from other universities will be eligible, provided they meet all other criteria. Any student who meets all the criteria and who obtains a credit-weighted mean grade of 16.5 or above for the year will be recorded on the Deans' List. The rules will be adapted for part-time students, who must achieve the minimum credit-weighted mean of 16.5 in 120 credits taken part-time over no more than three academic sessions. Full details of all the criteria and conditions for the Deans' List are available at www.st-andrews.ac.uk/administration/schools/deans/deanslist/

Prizes and medals

As well as the Deans' List (described in the University Student Handbook) and Class Medals (awarded to the best student in each year if considered worthy of the award), the following special medals and prizes are awarded to Honours students:

Dr John J. Durward Prize - Awarded to the student in the Senior Honours Biochemistry class who has the best consistent record in that subject

Margaret Laing Bell Prize - Awarded to an outstanding Junior Honours student in Environmental Biology

Margaret Laing Bell Prize - Awarded to an outstanding Senior Honours student in Plant and Environmental Biology

Margaret Lang Prizes in Marine Biology - Awarded (a) to an outstanding student in Marine Biology; and (b) to the student who produces the best Honours project thesis in this subject area

D'Arcy Thompson Medal and Prize in Natural History - Awarded to the best First Class Honours student in Animal Biology or a related subject area, if considered worthy of the award

Andrew Oliver Memorial Prize - Awarded for Field Studies in Environmental Biology

The Physiological Society Undergraduate Prize for Physiology - Awarded to the best Honours student in Physiology, if considered worthy of the award

Practical Work in Biology

There are two aims to the practical classes. The first, of course, is to reinforce concepts and ideas from the lecture course. The second aim, which is equally important, is to begin to train you in some of the general skills that all scientists require.

In first year your practical classes will include use of the light microscope, histology, electron microscopy, DNA transformation, genetics, a wide range of plant and animal material and an ecological field trip to Tentsmuir National Nature Reserve. During the year, we shall also concentrate on teaching you to write up and illustrate reports, use elementary statistics, give presentations, and organise and improve the style of your writing. You will be asked to do small tasks in groups including giving a talk. You will be assigned a demonstrator who you will keep for the duration of each module. All the skills that we are trying to teach you will be assessed, and the practical work will count for half of all the marks you require to pass the degree examinations.

In second year, practical classes are more specifically tailored to the modules, and we will expect a bit more initiative from you. The approaches taken will be very varied, and you will be asked to think more deeply about the biological principles and to take a role in designing some experiments yourself. Skills acquired in first year are reinforced, and new ones gradually introduced.

At Honours level, practical classes are more specialised and offer you greater freedom in terms of experimental design and investigation.

The use of animals in practical classes

The School of Biology understands that some students may be concerned or apprehensive about dissection or the use of animals. Students who take modules in biology must realise that these modules do involve looking at prepared animal material and in some cases preparing it for themselves. We believe that it is part of our job to teach you to have a responsible attitude towards the use of animal material and it is right and proper for all of us to think seriously about this question. In many aspects of advanced biology it is unavoidable directly, or more often indirectly, to use animals in one way or another.

We feel it is reasonable in the first year for you to be given the chance to think your attitude through carefully and with our help. The 1000 level modules ask you to dissect material which we feel is essential; but we shall not insist that you carry out these practicals or penalise you for not doing so. We shall expect you to make an effort to acquire the knowledge and skills in other ways as this material will be examinable. Please approach this question, therefore, with as open a mind as possible and remember that all staff take this question very seriously and you can discuss it with them.

When students move into the 2000-level biology programme and certainly into Honours modules, then a thorough biological training requires experience with both living and dead animal material. Not all modules require this, but many do and if you have any questions or doubts about the modules you would like to take in Biology, then please discuss them with us so that we can provide you with accurate and hopefully useful information which will help you to make up your own mind. You might wish to discuss this with your Advisor of Studies at the outset if you feel it may be a significant problem.

Requirements for practical classes

You will need to have the following items for your practical class work in Biology:

- a. An A4 loose-leaf practical workbook with lined and plain paper, and metric graph paper, HB and B pencils with sharpener, eraser and ruler.
- b. A set of dissecting instruments, which may be purchased from the on-line shop and collected from the technical staff when you enrol in the Biology Teaching Lab in first year (and you must buy these unless you already have a complete kit with fine forceps).
- c. A scientific pocket calculator with simple statistical functionality.
- d. A white lab coat, worn during practical classes to protect your clothing.

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School Seminar Programmes

The School runs regular seminar programmes, often with distinguished speakers from other universities, research institutes and industry. Subjects cover a wide spectrum of interests, ranging from topics of social concern such as matters of conservation, pollution, biotechnology, bioethics, medical genetics, and population control, to the more specialist interests including up to the minute biological and medical research developments.

All Honours students are expected to attend the seminar series relevant to their degree programme. Pre-honours students are also encouraged to attend. Details of the seminar series for each semester will be circulated by e-mail, and posted on the noticeboards. Seminars are a very important means of widening your appreciation and understanding of Biology and of the nature of scientific research.

Staff-student consultative committee

The students, chaired by the School President, convene the Student-Staff Consultative Committee (SSCC) and it gives you a chance to give feedback on your Modules and Degree programmes.

Early in the year there will be an opportunity to elect your representatives to the SSCC. Please inform your representatives of any problems that arise or suggestions that you would like to make. The representatives are also required to proactively solicit opinions from a wide range of classmates (not simply their friends), and to present a summary of those views (with numbers attached as appropriate) at the SSCC meetings.

There are normally two SSCC meetings per semester. Please contact your School President for information on dates and representation.

Module Questionnaires

As well as feedback through the SSCC, we will be handing out questionnaires at the end of all your modules. Feedback provided by these helps us to make changes from year to year and so improve the course as much as we can.

We would therefore be grateful (as will students in future years) if you would take the time and trouble necessary to fill these in *constructively* and return them. Normally time will be allocated for this in one of the last lectures for each module.

Who can help when things go wrong?

It is much better to let us know about problems as soon as they occur, so that we can give assistance and also take any problems into account in assessing your performance. Problems that are reported after a module is completed are much more difficult to deal with! Please talk to us - we are only too glad to help.

Feel free to talk to any member of staff who you feel you can approach. But the following avenues are there for you:

If you don't feel able to talk to someone in the School of Biology or your situation affects more than one School, or the problem not academic of nature then Student Services (through the ASC) will help in all cases.

All students have an **Adviser of Studies**, who you will meet at the beginning of each academic year, to whom any learning-related problems may be taken; but you should also feel free to talk to the **Module Organiser** about any issues affecting your performance on particular modules.

Dr Clare Peddie, Director of Teaching, has overall responsibility for matters affecting your academic performance in the School of Biology.

You can also take problems significantly affecting your studies, such that Leave of Absence might be required, to the Faculty, and **Dr Fiona Gray, Pro-Dean of the Faculty of Science**, (e-mail prodeansci@st-andrews.ac.uk) will be particularly helpful.

CAPOD is the University's central point for assistance with teaching and learning. It aims to encourage excellence and innovation in learning and teaching by providing support and guidance for students and staff. It also now houses a Mathematics Support Centre and many Biology students have used it when they've had difficulties with general numeracy, chemical calculations and statistics.

Termination of Studies

If your performance is unsatisfactory and you have gained insufficient credits to progress to the next stage of your programme, your studies may be terminated. This decision is taken by the relevant Dean in accordance with Senate Regulations.

If you are in this situation you will be notified that your studies are being terminated and you will normally have ten working days within which to submit a request for the decision to be reviewed by the Dean. This should be supported by appropriate documentary evidence

specifying the reasons for your unsatisfactory performance. Students who do not appeal against Termination of Studies will have their studies automatically terminated. If this request is unsuccessful and the Faculty proceeds to terminate your studies you will have one further right to an appeal to the Senate of the University. In this case, appeals should be submitted to the Senate Office within one calendar month of receiving the outcome of the review request. Full details on the acceptable grounds for appeal and the processes involved are outlined at [Appeals, complaints and discipline](#), which can also be found at [Current Students > Rules and Regulations](#).

Withdrawal from Studies

If you are considering withdrawing from your studies at the University you should discuss the matter with your Adviser of Studies in the first instance. You should arrange to do this as early as possible as there are often alternative options open to you that would not require the final step of permanent withdrawal from the University. If you do decide you wish to withdraw from your studies you must contact the appropriate Pro Dean who will be able to offer guidance on your options and who will ensure that the process is completed correctly. You should be aware that there are fee implications when you withdraw from your studies part of the way through an academic year. You should therefore ensure you contact the Money Adviser in Student Services to obtain early advice on the final implications of your decision before you complete your withdrawal.

Appeals, Complaints and Discipline

The University is committed to ensuring as high a quality student experience as possible while studying at St Andrews. Occasionally things may go wrong and if you are experiencing a difficulty, or are dissatisfied with your academic experience, you should raise concerns as soon as possible. This allows effective resolutions to be worked out quickly. Difficulties or dissatisfaction normally fall into one of three categories:

- **Appeals against academic judgements** - where, for example, the University has made a judgement about your assessed work or academic progression;
- **Complaints** - where you are dissatisfied with the provision, whether academic or non-academic, that you have received from any part of the University;
- **Disciplinary cases** - where the University has grounds to believe that you have conducted yourself in an unacceptable manner in an academic or non-academic context.

If there are personal circumstances that may affect your academic performance and subsequently may result in an Academic Appeal, please bring these to the attention of an appropriate member of staff as soon as possible, for example your Academic Adviser, module

coordinator or the appropriate Pro Dean. You can obtain guidance on the procedures relating to Appeals, Complaints and Discipline from the Students' Association, the Senate Office, or Student Services

Student Fees

Graduating in person or *in absentia* marks the end of your degree or diploma course of studies at the University of St Andrews. If you have been accepted onto a new degree or diploma programme at the University, the new programme is separate and distinct from the course of studies from which you are about to graduate, and you will be liable for all fees associated with that new programme.

Disability Support

If for disability reasons you require support for example; teaching and exam arrangements, please contact Student Services . Student Services provides support for a wide range of disabilities such as; Learning difficulties, visual and hearing impairments, mobility difficulties, Aspergers, mental health, long standing medical condition and much more. www.st-andrews.ac.uk/studenthandbook/diversity/disabilities/

Opportunities outside Semester time

Careers, Internships and work experience

During your Honours course you must give serious thought to the career that you intend to follow after you graduate. You should consult members of staff about this, and your Degree Controller and (in due course) Senior Honours project supervisor will usually be those best able to advise you in the first instance. We cannot stress too strongly the wisdom of considering a variety of options, and of consulting the University's Careers Service at an early stage.

The Careers Service is a University organisation with two main functions: to provide students with information and advice about the range of careers open to them; and to help them to find a suitable starting point at the conclusion of their course by providing detailed information about employers and jobs, about further study, and about training establishments and courses. It is staffed by full-time advisers who are available for consultation throughout the year at 6 St Mary's Place. The Careers Service has recently developed a wiki site giving specific advice for biology graduates. This can be accessed at: http://www.st-andrews.ac.uk/careers/wiki/Main_Page.

Inevitably, the main resources of the Service are devoted to those approaching the end of their studies, but it must be emphasised that its services are open to all students. For most, the final year is a very busy one and the Service, as a matter of policy, encourages students

to register early in their studies in order to ease as far as possible the amount of time spent in the final year on careers research. You are always welcome, with or without formal registration, to use the available facilities, e.g. to attend information sessions and workshops, to investigate vacation and sponsorship opportunities and, most of all perhaps, to consult in the reference libraries the extensive collection of literature on employment and training in many fields.

During the year, and especially after Christmas, the School receives a great many sheets of information about postgraduate courses, PhD places and job opportunities in the general field of biology. We will endeavour to circulate these to you electronically in our weekly update.

When you apply for jobs or postgraduate positions you will often be asked to nominate academic referees. Your Degree Controller and your project supervisor will, in most cases, be the most obvious people to ask to act in this way for you. If you do ask either of them, or any other staff member, to do this, it is a good idea to give them *curriculum vitae* to ensure that they are aware of all your activities and can write as well-informed a reference as possible. It is also a good idea to provide them with information relating to the posts for which you are applying so that they are able to make a more informed assessment of your suitability.

The Employability Coordinator for the University is Pamela Andrew, and she is also the person at the Careers Service who looks after Science students so she is an ideal person to meet with you if you have questions. You can contact her at: pea1@st-andrews.ac.uk.

Vacation studentships

The Wellcome and Carnegie Trusts support students for periods of laboratory work in the summer vacation. Information on these studentships will be posted on the Honours notice board. The Careers Advisory Service may also be able to help with advice on summer scholarships but ask them well in advance, as some of the deadlines are very early in the year.

Undergraduate Research Internship Programme (URIP)

This programme was introduced with the intention of giving undergraduate students the opportunity to experience research during the summer vacation. The URIP is open to students who are matriculated at the University of St Andrews and who will typically have completed their penultimate year of studies. URIP funding (currently at £180 per week for up to ten weeks) cannot be used to support research for a credit-bearing programme. Details of the scheme, including information about the application procedures, are published during the

academic year. The programme is administered by the Deans of Arts and Science. For full details of the application process visit www.st-andrews.ac.uk/students/academic/internships/

Advertisements posted in biology buildings

From time to time posters advertising a variety of summer schools, fieldwork centres, charity-based research projects, ecotourism organizations and other similar activities may be posted on notice-boards (usually by interested students). These seek to encourage your involvement during vacation periods. You will also find notices advertising post-graduate programmes at a variety of institutions and also advertisements for jobs available to you after graduation. Any information which comes into the School of Biology regarding possible placements or internships will be circulated in the weekly e-mail.

PLEASE NOTE, unless specifically stated the School and the University may not take any responsibility for your engagement in these activities. They are not recognized components of your degree programme and are not regulated in any way by the University. You may not be insured by the University when participating in these schemes and must ensure that you arrange your own travel and personal insurance for such activities out with your degree programme. If you are considering pursuing any of these opportunities, but have any concerns relating to it, you are encouraged to discuss these informally with staff.

Health and Safety

The Health and Safety of all individuals within the School of Biology is of particular importance. A booklet, containing the Health and Safety Policy of the School of Biology, is available in each laboratory of the School. It is the duty of the Academic Supervisor/Module Organiser/Laboratory Demonstrator, as well as your own, to ensure that you are aware of its contents, especially in so far as they affect your work activities, and that you work safely at all times. You may obtain a copy of this Policy from the Building Safety Coordinator or from the Academic Supervisor/Module Organiser/Laboratory Demonstrator. Appropriate training will be provided in specific areas as required, e.g. radiation hazards, microbiological hazards. The '**Code of Practice for Undergraduate Work in the Laboratory**' can be found below and it is your duty to ensure that you adhere to it at all times.

MAKE SURE THAT YOU FOLLOW ALL SAFETY INSTRUCTIONS. ALWAYS ASK IF YOU ARE IN ANY DOUBT ABOUT THE HEALTH AND SAFETY POLICY OF THE SCHOOL.

Fieldwork/work outside the University of St Andrews

All students attending field courses, or whose Honours projects involve fieldwork, or any work taking you outside the University of St Andrews must have an assessment of the risk associated with the activity carried out before the activity commences. This assessment will be carried out by your Academic Supervisor/Module Organiser in consultation with the School Field Safety Officer on the School 'Risk Assessment of Fieldwork Activities' Form. This risk assessment will be discussed with you before the activity commences.

Ethics (UTREC)

All research in all Schools of the University that involves data collection from (questionnaires etc...), interviews of, interactive investigation of, experimentation upon or demonstrations involving living human subjects, tissues and / or other samples requires formal approval from the University Teaching and Research Ethics Committee (UTREC).

It is University policy that any research involving children under 18 should be reviewed by the UTREC Child Panel and that the researcher should hold an 'Enhanced Disclosure Scotland' (EDS) certificate. The principal supervisor is responsible for ensuring that the student has received the appropriate ethical clearance from UTREC and the Child Panel prior to research commencing.

It is a requirement that any undergraduate honours or Masters dissertation or PhD thesis that requires ethical approval from UTREC has the letter or email of ethical approval bound into the appendix before submission.

Laboratory Code of Practice

1. **It is your duty to make sure that you follow the Health and Safety Policy of the School and any Health and Safety instructions given to you by your Academic Supervisor/Laboratory Manager/Laboratory Demonstrator.**
2. You must work safely at all times
3. You must not commence any work activity until the risks, if any, associated with the work activity have been explained to you.
4. You should be familiar with the contents of the School Health and Safety Policy, especially in so far as they affect your work activity. A copy of the Policy is available in each laboratory of the School.
5. An appropriate risk assessment must have been performed, using the electronic risk assessment management system, for each laboratory procedure in which chemicals or biological agents with a COSHH rating of 3 or more are involved. This will normally be prepared by your Academic Supervisor /Laboratory Manager /Laboratory Demonstrator. You must be aware of the content of the risk assessment, know what type of personal protective equipment to use, and know what to do in the case of an accident.
6. Laboratory coats, of an appropriate type, must be worn at all times.
7. Eating, chewing, drinking, smoking, storage of food, the application of cosmetics and horse-play are forbidden in the laboratory.
8. Mouth pipetting is forbidden.
9. All procedures must be performed so as to keep the production of aerosols to a minimum. Any procedures likely to produce aerosols should be performed in the fume hood
10. The laboratory must be kept as clean and tidy as is conducive to good working practice.
11. Special arrangements are in place for the use of radio-isotopes and genetically-modified organisms and your Academic Supervisor will discuss these with you before the work activity commences.
12. Waste must be disposed of as described in the School Health and Safety Policy (see Appendix 6) or as instructed by the Laboratory Demonstrator.
13. Accidents, and near accidents that could lead to injury or infection, should be reported immediately to your Academic Supervisor /Laboratory Manager /Laboratory Demonstrator.
14. **First Aid Boxes are available in all laboratories in the School of Biology and you should familiarise yourself with their position prior to conducting any practical work.**

Always ask if you are in any doubt about the Health and Safety policy of the School.

HONOURS EXAM GRADE DESCRIPTORS 2011-12.

Allowed grades	Descriptor
FAIL	Unacceptable performance: NOT CREDITWORTHY
0	No biological content at all.
1	Contains a small amount of biological or informational content, but either irrelevant, wrong, or trivial.
3	Some relevant information is presented, but the key issues of the topic either are largely wrong or missing. Extremely superficial throughout. Little or no relevant evidence and few correct facts.
5	Some key issues are addressed correctly, albeit superficially, but others have serious conceptual errors or are missing. Little relevant evidence and few correct facts.
Pass, Ordinary	Not Honours standard
7	Many of the key issues are addressed, but either very superficially or with important errors and/or omissions. Little relevant evidence and few facts. Brief, or unnecessarily padded and/or very poorly organized.
3 rd Class	Minimal Honours standard
9, 10	Most of the key issues are addressed correctly but superficially, and without showing real understanding. Some relevant evidence and/or factual information. Poorly organized and lacking a contextual framework.
Lower 2 nd Class	Adequate Honours standard.
11, 12, 13	The answer shows an understanding of the key issues and has a suitable contextual framework, but without great depth. The arguments are weakly articulated.
Upper 2 nd Class	Good Honours standard.
14, 15, 16	The answer displays a good understanding of the main relevant issues. There are no major conceptual errors on key issues, but there may be minor errors. The essay is generally well written and comprehensible.
1 st Class	Very good to excellent Honours standard
17, 18	A very good understanding of the major issues, with a clear, well-informed and well-structured contextual framework and argument around the topic. There is an appropriate mix of theory and evidence.
19, 20	As 17-18, except there is additional clear evidence that the student has valuable originality in perspective or exceptional depth of understanding, and/or has integrated appropriate material in addition to that presented by the question setter in the taught module.

Treatment of Irrelevant Material

Markers must carefully consider whether unexpected material is indeed irrelevant, and students should be given the benefit of any reasonable doubt.

Where material is clearly irrelevant, the following guidelines apply.

- Where irrelevant material occurs within an answer that is generally on-topic, it should be ignored.
- Where the whole answer appears to be a response to a question that was not asked
 - If the answer is biological, but not in any way related to the actual question, award grade 1.
 - If the answer is related to the topic of the question but clearly NOT on the actual topic, grade according to the quality of the material presented, using the following guidelines.
 - An excellent essay: grade 11
 - A good essay: grade 9
 - An adequate essay: grade 7
 - A poor essay: grade 3.

The purpose of these guidelines is to help ensure consistency of treatment when students present irrelevant material.

PRE-HONOURS GRADE DESCRIPTORS 2011-12 (To be circulated separately)

Modules & Organisers 2011/2012

Semester 1

Module No.	Module Title	Module Organiser
	PRE-HONOURS	
BL1101	Biology I	Dr Anne Smith
	PRE-HONOURS	
BL2101	Cell Structure & Function	Ms Lorna Sibbett
BL2102	Zoology	Dr Bill Heitler
	Skills for Biologists	Ms Lorna Sibbett
	JUNIOR HONOURS	
BL3320	Practical Skills for Biologists	Dr Will Cresswell
BL3301	Protein Structure & Function	Dr Uli Schwarz-Linek
BL3302	Gene Regulation & Expression	Dr Daniel Barker
BL3303	Membranes & Cell Communication	Dr Rona Ramsay
BL3306	Environmental Physiology	Dr Gerald Prescott
BL3307	Evolution	Prof Tom Meagher
BL3308	Aquatic Ecology	Dr Iain Matthews
BL3901	Current Topics in Biology – evening degree	Dr Rona Ramsay
	SENIOR HONOURS	
BL4200	Literature-based Research Project	Dr Roger Griffiths
BL4201	Experimental Research Based Project	Prof Pat Willmer
BL4210	Practical Skills for Molecular Biology & Biochemistry	Prof Martin Ryan
BL4211	Antimicrobials – Mode of Action and Resistance	Dr Peter Coote
BL4212	How Enzymes work	Dr Rona Ramsay
BL4213	Molecular Virology	Prof Rick Randall
BL4215	Bacterial Virulence Factors	Dr Uli Schwarz-Linek
BL4216	Structure-based Drug Discovery	Prof Garry Taylor
BL4221	Conus Venom Peptides: Receptor and Ion Channel Targets, and Drug Design	Dr Roger Griffiths
BL4222	Metabolic and Clinical Biochemistry	Dr John Ingledew
BL4223	Chromosomal DNA replication & genome stability	Dr S MacNeill
BL4230	Neurodegeneration and Aging	Dr Frank Gunn-Moore
BL4232	Neural Mechanisms of Predatory and Avoidance Behaviours	Dr Bill Heitler
BL4233	Physiology and Pathology of Human Ageing	Dr Gayle Middleton
BL4238	Systems Physiology	Dr Gareth Miles
BL4234	Synaptic Transmission	Dr Wenchang Li
BL4235	Motoneurons, from physiology to pathology	Dr Gareth Miles
BL4248	Human Physiology of Diving	Dr Clare Peddie
BL4250	Stress Physiology of Fish	Dr Neil Hazon
BL4251	Tropical Marine Biology	Dr Carl Smith
BL4255	Marine Biotechnology	Dr Val Smith
BL4257	Marine Invertebrate Larval Ecology	Prof Chris Todd
BL4266	Conservation Research Methods: Estimating Populations Size	Dr Will Cresswell
BL4268	Conservation and Management of Biodiversity	Prof A Magurran
BL4272	Molecular Ecology	Dr Jeff Graves
BL4273	Bioinformatics for Biologists	Dr Daniel Barker
BL4274	Evolutionary Development Biology	Dr David Ferrier
BL4275	Evolution in Action	Prof Tom Meagher
BL4280	Evolution and Human Behaviour	Prof Kevin Laland
BL4281	Communication and Cognition in Animals	Dr Vincent Janik
BL4291	Science, Museums and the Public	Dr Martin Milner
ID4001	Communication and Teaching in Science	Dr R Ramsay

Semester 2

Module No.	Module Title	Module Organiser
	PRE-HONOURS	
BL1102	Biology II	Dr Iain Matthews
	PRE-HONOURS	
BL2104	Biochemistry & Molecular Biology	Dr J Ingledew
BL2105	Ecology	Prof Andy Brierley
BL2106	Comparative Physiology	Dr Gerald Prescott
	Skills for Biologists	Ms Lorna Sibbett
	JUNIOR HONOURS	
BL3000	Field Course (summer vacation)	Prof Dave Paterson
BL3309	Ecosystems and Conservation	Dr Will Cresswell
BL3310	Metabolism and Bioenergetics	Dr John Ingledew
BL3311	Infection and Disease	Dr Peter Coote
BL3312	Pharmacology	Prof Keith Sillar
BL3313	Neuroscience	Dr Frank Gunn-Moore
BL3315	Developmental Biology	Dr Martin Milner
BL3316	Animal Plant Interactions	Dr Jane Wishart
BL3318	Biology of Marine Organisms	Dr Valerie Smith
BL3319	Animal Behaviour	Prof. Kevin Laland
BL3902	Biology Literature Review – evening degree	Dr Rona Ramsay
	SENIOR HONOURS	
BL4200	Literature-based Research Project	Dr Roger Griffiths
BL4201	Experimental Research Based Project	Prof Pat Willmer
BL4202	Research Project in Museum Studies	Dr Martin Milner
BL4224	Molecular mechanisms of membrane trafficking	Dr Gerald Prescott
BL4231	Neuromodulation	Prof K Sillar
BL4249	Scientific Diving	Dr Clare Peddie
BL4254	Fisheries Research	Dr Charles Paxton
BL4256	Marine Acoustics	Dr V Janik
BL4259	Marine Mammals and Man	Prof. Phil Hammond
BL4265	Ecological Modelling	Dr Jason Matthiopoulos
BL4270	Plant-environment Interactions	Dr J Wishart
BL4282	Biology & Behaviour of Social Insects	Prof Pat Willmer
BL4284	Breeding Systems & Sexual Conflict	Dr Carl Smith
BL4285	Complex Systems in Animal Behaviour	Dr V Anne Smith
BL4286	Advanced Topics in Ecology and Evolution	Dr Dave Shuker
BL4291	Science, Museums and the Public	Dr Martin Milner
BL4292	History of Genetics and Evolution	Dr Martin Milner