



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA

School of Biosciences Malaysia Campus

Student Handbook (Year 3)

2016-2017

**Plant Biotechnology
Biotechnology
Nutrition**

Please note that all of the information given in this Student Course Handbook are correct at the time of going to press. The School reserves the right to amend the course structures or information and amend, substitute or withdraw modules detailed in this publication.

Comments or suggestions on the contents of this handbook are welcome, and will be used in the revised edition for 2016-2017. Please direct all comments to Ms. Tilagavati Narayanan @

[\(Tilagavati.Narayanan@nottingham.edu.my\)](mailto:Tilagavati.Narayanan@nottingham.edu.my).

Updated 7th September 2016

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1 ACADEMIC YEAR 2016-2017

SEMESTER DATES	
Autumn	Tuesday 20 September - Saturday 21 January 2017
	Teaching begins on Monday 26 September 2016
Spring	Thursday 2 February 2017 - Wednesday 31 May 2017
	Teaching begins on Tuesday 6 February 2017

EXAMINATION DATES	
Autumn	Monday 9 January 2017 to Saturday 21 January 2017 - including Saturdays
Spring	Thursday 11 May 2017 to Wednesday 31 May 2017 - including Saturdays
Re-assessments	Monday 14 August 2017 to Wednesday 30 August 2017 - excluding Saturday

Regulations require students to be at the University throughout the full period of each term, including the first and last days.

Registration (provisional dates)

Year 1 and direct entrants to Year 2

Tuesday 20 September - Saturday 24 September 2016

Year 2

Students will be notified through email by Registry office

Final year

Students will be notified through email by Registry office

2 COURSE HANDBOOK

This Manual is designed to give you all the information you need to allow you to progress your studies at Nottingham. It describes the various procedures and practices that are in place which are designed to help you achieve your goals. From time to time these have to be changed to meet new requirements put upon us by the University and on occasions changes are made based on student opinion. Therefore at any time if you have a positive suggestion, which can bring about some improvement in what we do, please bring these to the attention of the Student Association who are represented on a number of University Committees.

3 THE SCHOOL OF BIOSCIENCES

The School of Biosciences is part of the Faculty of Science. The School offers the following Undergraduate Courses: Bachelor of Science (Honours) Plant Biotechnology, Bachelor of Science (Honours) Biotechnology, Bachelor of Science (Honours) Nutrition and Bachelor of Science (Honours) Environmental Science.

Faculty Office

Office Hours	:	9.00am – 5.00 pm
Counter Operation Hours	:	9.30am – 12.30pm 1.30pm – 5.00pm

The Faculty Office is located on ground floor of Block B. This should be your first port of call if you have any queries or concerns. You can visit or call in between 9.00 am to 5.00 pm from Monday – Friday or you can call 03-8924 8203 or email Ms Tilagavati Narayanan.

Tilagavati.Narayanan@nottingham.edu.my

As well as providing information and advice, the faculty office staff will receive work being handed in and return marked course work, module entry forms and other pieces of information.

4 ADVICE

One of the first people you will meet is your Personal Tutor. Your Personal Tutor will be a member of academic staff with whom you have regular meetings, sometimes as part of a group. Your Tutor is there to give you help and support in person as well as guidance in academic matters. You should make every effort to establish a good working relationship. Your Tutor will provide you with details of your exam performance and it is essential that you discuss your progress, in confidence, with him/her at regular intervals.

Here are a few pieces of free advice; they come from fellow undergraduate students and from academic staff who helped us prepare this document.

- Most lecturers teach at a faster pace than you may be used to from school or college.
- Develop good note taking skills early in your university career.
- Lectures are progressive, i.e. each one builds on the last. Missing lectures is therefore dangerous, as is ignoring things that you didn't fully understand at the time.
- Module Conveners may issue a book list. Check with academic staff and 2nd and 3rd year students which are the most valuable to buy. You may not be able to afford them all. Books on your reading lists can be borrowed from the Libraries.
- You should expect to work outside of class time. This may include reading, rewriting your notes, doing coursework, writing reports, etc.

- Don't be afraid of asking questions in lectures. Lecturers like to know that students are following what they are saying. The question you ask may be exactly what other students were wondering but were afraid to ask. Most lecturers will provide opportunities for questions. You can also ask for help outside of lecture time.
- Don't be afraid to approach staff for help. Their offices are accessible to you (knock and wait) and they have telephones and email. They are busy people but a large part of their work involves dealing with students.
- Make use of their time, advice, experience and expertise.
- Remember that activities continue after the exams and that you are required to remain at the University until the end of each semester.
- Never hesitate to see the lecturer if you are having difficulty with his / her module or don't understand why you were given a particular mark.
- Handing in coursework late means losing marks. 5% will be lost for every working day late.
- The School has an undergraduate Learning Community Forum with staff and student representatives from each year. Use this system to make constructive comments about your course.
- If you become ill and have to miss more than a couple of days, or a coursework deadline, or if your performance in an exam is affected, go to see your tutor and complete an Extenuating Circumstances Form (forms available from the Faculty Office) and on the website: <http://www.nottingham.ac.uk/academicservices/qualitymanual/assessmentandawards/extenuating-circumstances-policy-and-procedures.aspx>. See appendix 9.
- Missing an exam for any reason is extremely serious and should be avoided if at all possible. Let your Tutor know IMMEDIATELY and complete an extenuating circumstances form available as above.
- Read notice boards and check your University email daily; otherwise you may miss vital information.

5 STUDENT COMMITMENT

Students are expected to access their e-mail accounts regularly as this is the main means of communication. Please do not use any other personal email account which you may have for communication within the University. If you do, you risk losing out on important information.

You are required to:

- **Read** this handbook and other documents referred to so that you are clear about the structure of your degree course and what is expected of you.
- **Abide** by University Ordinances, Regulations and other codes of practice (e.g. Computing, Safety etc.). See appendix <http://www.nottingham.ac.uk/academicservices/currentstudents/studentregulations.aspx>
- Consider maintaining an electronic **Personal Academic Record (ePAR)** in collaboration with your tutor (see Par section). It records details of exam performance but also records meetings and items discussed and any significant events occurring during the academic year. The record is important because it allows you to appreciate the progress you have made. It will also form your tutor's record of your period at the University. Tutors are frequently asked to act as referees for their students in assisting them in their job applications in later years; the ePAR allows this information to be provided quickly and accurately. See section 18 for further details.
- Read **notices** placed on official notice boards. These provide an important primary channel of general communication and may advertise such information as re-arrangements to the teaching timetable.

It is wise to carry a diary in which to note appointments with tutors, module conveners, course managers, etc.

6 YOUR SCHOOL AND YOUR STUDIES

Teaching Staff - Lecturers are responsible for teaching components of modules and for setting and marking assignments and examinations.

Each module has a **Convener** who is responsible for its organisation. At the start of the module, the Convener will issue to each student a document describing its aims, content, objectives, transferable skills, methods of assessment, dates for submission and return of coursework and penalties for late submission. Students will be given coursework turnaround details. S/he will also conduct a feedback exercise at the end of the module to gauge student opinion.

Each course has a **Course Director**, responsible for overseeing its structure and smooth running. The Course Manager ensures balance between modules and liaises regularly with other staff to ensure that appropriate teaching and learning are provided. The **Course Director** are directly responsible to the **Head of School** for ensuring that all levels of the teaching management structure operate efficiently. They should be notified of any significant problems. **Heads of School** are ultimately responsible for the services provided by their staff.

The **Head of School** oversees the organisation and management of teaching across the School.

In addition to the above roles, the **Course Director** appoints student representatives and holds meetings at which any matters which students may wish to raise can be discussed. Don't be afraid to make your views known!

A list of the staff who hold these positions is included in this handbook (see Academic Staff and Support Staff). Students should feel able to approach any of them with concerns they may have about aspects of their education. Your Personal Tutor can advise you and make the appropriate contacts.

7 ACADEMIC STAFF AND SUPPORT STAFF

The Dean of the Faculty of Science is Professor Andrew Morris and the Head of School of Biosciences is **Professor Festo Massawe**.

SCHOOL ACADEMIC STAFF				
NAME	KEY ROLES	TEL (+603- numbers)	ROOM	Email @ nottingham.edu.my
Prof Festo Massawe (FM)	Head of School	89248218	BA51	Festo.Massawe
Dr Chin Chiew Foan (CCF)	Deputy Head of School Director, Research & International Strategy	89248216	B1A14	Chiew-Foan.Chin
Dr Winnie Yap Soo Ping (WY)	Associate Dean FOS (Teaching & Learning) Director, Teaching and Learning Industrial Placement	89248228	BA46	Winnie.Yap
Dr Christina Vimala Supramaniam (CVS)	Director, Admissions, Marketing and Recruitment Admissions Tutor, BSc Biotechnology; MSc Crop Biotechnology	89248217	BA36	Christina.Supramaniam
Prof Sandy Loh Hwei San (LHS)	Course Director, BSc Biotechnology Theme Leader –Biotechnology and Allied Areas	89248215	B1A22	Sandy.Loh
Dr Lim Yin Sze (LYS)	Course Director, BSc Nutrition Exam Officer	89248726	BA50	YinSze.Lim
Dr Soma Mitra (SM)	Admissions tutor, BSc Nutrition Ethics officer	87253433	BB82	Soma.Mitra
Dr Susan Azam Ali (SAA)	Theme leader for Food and Nutrition	89248727	BA50	Susan.Azamali

SCHOOL ACADEMIC STAFF				
NAME	KEY ROLES	TEL (+603-numbers)	ROOM	Email @nottingham.edu.my
Dr Ajit Singh (AS)	Course Director, MSc Crop Biotechnology Senior Tutor Chair, Learning Community Forum Coordinator, Green/shade house facility	89248167	CB12	Ajit.Singh
Dr Eunice Ngai Siew Ching (EN)	Admission Tutor and Advisor for Postgraduate students (MRes, MPhil and PhD)	87253533	BB71	Ngai.SiewChing
Prof Asgar Ali (AA)	Coordinator, Staff Support and Development	89248219	BA34	Asgar.Ali
Dr Nabin Rayamajhi (NR)	Co-coordinator and module convener, Final Year Project (FYP)	87253619	BB57	Nabin.Rayamajhi
Ms Cheng Shi Hui (CSH)	Coordinator, School Website, Social Media Library Liaison Officer	87253618	BA 50	ShiHui.Cheng
Dr Acga Cheng (AC)	Post-doctoral Fellow Coordinator, Biotechnology Research Centre (BRC)	87253615	DB04	Acga.Cheng
Dr Hui Hui Chai	Teaching Fellow	87253615	DB04	Huihui.Chai

FACULTY ADMINISTRATIVE AND TECHNICAL SUPPORT STAFF				
NAME	KEY ROLES	TEL (+603-numbers)	ROOM	Email @nottingham.edu.my
Mrs Salma Abd Kadir	Faculty Manager School Disability Liaison Officer	89248201	BA59	Salma.AbdKadir
Mrs Sharon Aziz	Courses Administrator	89248767	BA59	Sharon.Aziz
Mrs Radha Sivadasan	Purchasing Executive	89248205	BA59	Radha.Sivadasan
Mrs Carol Sarah Roy (D'cruz)	Faculty Secretary	89248764	BA59	Carol.Dcruz
Mrs Tilagavati Narayanan	Undergraduate courses – (Biosc) Administrator	89248203	BA59	Tilagavati.Narayanan
Mrs Sabariah Amin	Undergraduate courses Administrator	89248204	BA59	Sabariah.Amin
Mrs Vanitha Singaram	Administrative Officer	87253744	BA59	Vanitha.Singaram
Ms Gustilia Ovivi Irwan	Administrative Officer	89248735	BA59	Gustilia.Ovivi
Ms Roshanini Mat Idrus	Foundation Administrator	89248756	BA59	Roshanini.Idrus
Ms Samundeswari Nachiar Ramachandran	Administrative Assistant	87253745	BA59	Eswari.Nachiar
Mr Wong Siak Chung	Technical Manager	87253448	CB14	SiakChung.Wong
Mr Wan Ghani Wan Ishak	Senior Laboratory Technician	89248222	CB17	Wan.Ghani
Mr Foong Hoe Yinn	Senior Laboratory Technician Safety Officer	89248233	BRC	HoeYinn.Foong
Mrs Siti Norazlin Muhd Nor	Senior Laboratory Technician	89248220	CB10	SitiNorazlin.MNor
Mrs Norasyikin Azlan Hadi Tan	Senior Laboratory Technician	89248224	BRC	Norasyikin-AH.Tan
Mrs Shankari Shyamala	Laboratory Technician	89248221	CB10	Shankari.Shyamala
Ms Nurul Hasila Mohd Ithnin	Laboratory Technician	89248231	CB10	Nurul.Hasila
Ms Siti Nor Asma Musa	Laboratory Technician	89248220	CB10	Siti.Norasma
Mrs Haslinda Husin	Laboratory Technician	89248220	CB10	Haslinda.Husin
Ms Siti Nur Khatijah Che Samsuddin	Laboratory Technician	89248220	CB10	Siti.NurKhatijah
Ms Nur Fasihah Bt Mohd Esa	Laboratory Technician	89248220	CB10	Fasihah.Esa
Mrs Afini Razani	Laboratory Technician	89248221	CB01	Afini.Razani
Ms Aisyah Zulkipli	Laboratory Technician	TBC	CB01	TBC

COURSE STRUCTURES, ORGANISATION AND CHOOSING YOUR MODULES

The Academic Year

The academic year at Nottingham is based on 2 semesters (Autumn and Spring) spread over two terms. See Timetable section for dates.

The following definitions might be helpful to you:

- **Credits** indicate a quantity of assessed learning. They contribute to a cumulative indication of modules which a student has completed. One credit equates to approximately 10 hours of study.
- A **Module** is a specified programme of study which is self-contained and which attracts a specified number of credits. Examinations are held at the end of most modules. A ten credit module accounts for approximately 100 hours of your time, of which usually no more than 40 hours will be spent in the lecture room or laboratory.
- A **Course of Study** is a set of modules satisfying the requirements for a particular degree and attracting 320 credits for an Ordinary Bachelor degree and 360 credits for an Honours degree.
- The levels in a course of study leading to an Honours degree are as follows
 - Year 1 (120 credits) Level 1
 - Year 2 (120 credits) Level 2
 - Year 3 (120 credits) Level 3

Credits achieved in Year 1 are for progression purposes only and will not contribute to the final degree classification.

- A **semester** is a division of the academic year. It consists of twelve weeks of teaching, coursework and revision, plus two (Autumn Semester) or four (Spring Semester) weeks of assessment and consultation.

Note: Although each academic year is divided for teaching purposes into two semesters, there is still a short break at Hari Raya, Christmas and Chinese New Year. Depending on the dates of the Chinese New Year, the start of Semester two may be delayed.

- A **year** is a period of study consisting of an Autumn Semester followed by a Spring Semester.
- **Assessment** may be by means of written examination papers, oral examinations or coursework. Progression and/or degree classification are based on the outcome of the assessment.
- A **mark** is a numerical indication of the quality of the assessed work completed by a student in each module. Marks awarded are subject to the approval of the Board of Examiners and are ratified by an External Examiner.

MODULE SELECTION

You must select your modules in accordance with the relevant programme specification (see course structures) and the University's Qualifications Framework, see <http://www.nottingham.ac.uk/academic-services/qualitymanual/curriculum/index.aspx>

In your first year (qualifying year), all modules are core modules and are compulsory. This means that you will not have to select any optional modules. In years two and three (Parts I and II) you will have the option to select modules which complement your core modules and which are relevant to your chosen field of study. A choice of modules will be available whichever degree programme you are taking, although the extent of the choice does differ. The modules have been designed to enable you to make a selection which best suits your needs and interests. Inevitably there are constraints because of timetable clashes and the limits set by degree regulations, but subject to these you have a choice of modules. When making your choice you must seek help from your **Course Director or Personal tutor**, who will authorise your choice. It is also necessary to look forward to future years to ensure that you will fulfil the pre-requisites for the modules which you are likely to choose. Details are available in the Catalogue of Modules to be found at <http://modulecatalogue.nottingham.ac.uk/malaysia/>

During one academic year, you must accumulate 120 credits over the two semesters. The degree regulations may permit you (depending on your degree course) to collect 60 credits out of the total 360 credits for your degree from modules offered by other Schools in the University, see <http://www.nottingham.ac.uk/academic-services/qualitymanual/registrationattendanceandstudy/index.aspx>

Students should note the regulation below:

*If you are considering taking a module in any School other than the School of Biosciences, then you will need to register your module choice(s) with that School and in accordance with their module registration arrangements; **choice(s) must also be discussed with, and approved, by your Course Director.** Please contact our Faculty Office for Registration details of other Schools.*

MODULE REGISTRATION PROCESS

At module registration days you will be asked to complete a module registration form with details of your chosen optional modules for ALL PERIODS, i.e. for modules totalling 120 credits. All entries must include the module code. **All optional choices must be approved and signed by your Course Director.** You will have an opportunity at the beginning of the Autumn/Spring Semesters to make adjustments to your choices for that semester; you will also need to check that there are no timetable clashes.

Your choice of modules must normally total 60 credits per semester, and in any event not less than **50 credits** or more than **70 credits** per semester. To determine how a Full Year module contributes to the number of credits in a given semester, check the semester credit split for that module in the Module Catalogue.

IT IS YOUR RESPONSIBILITY to see that your combination of modules accords with the Regulations for your course and teaching timetable. **Failure to do so could prevent you from progressing to the next year of the course or from graduating.**

Once you have chosen your optional modules and they have been approved, **IT IS YOUR RESPONSIBILITY** to ensure that you read the Declaration, sign the form and hand it to Faculty Office staff by the deadline date (which will be announced at the start of each semester). After that date changes to Full Year and Autumn Semester choices will not be allowed. **Failure to hand in the form by the date displayed may lead to incorrect examination entries and records.**

WHAT IF I CHANGE MY MIND?

When you register in September 2016 you will receive details of your core and optional modules and will be asked to confirm your options for both semesters. The 'change of mind' period remains as the **first 2 weeks** of the semester. During this time, students can change their module enrolments in accordance with the first degree and supplementary regulations. This requires the approval of all Schools/Departments concerned.

Please note that a number of modules have restricted places on them (unless core for your degree); Details of capped modules will be given to you at module registration Day.

REMEMBER:

YOUR MODULE CHOICE MUST BE RECORDED ACCURATELY AT THE END OF EACH TWO WEEK "MAKE-YOUR-MIND-UP" PERIOD AS THE EXAMINATION TIMETABLE IS BASED ON MODULE ENTRIES

Please collect and check your module confirmation forms and examination timetables when requested to do so. Unreported errors cause a lot of work in the School and may result in clashes on your exam timetable.

9 COURSE STRUCTURES

It is your responsibility to ensure that you abide by the University Degree Regulations and your degree's Course Structure when choosing optional modules. Advice can be sought from your Course Director or the Head of School (UNMC).

9.1 Bachelor of Science (Honours) Plant Biotechnology (Year 2016-17)

Semester 5

Code	List of Modules	Credit	Module Convener
	Core YL Research Project		
D23PRO	UG Research Project (YL)	20/40	CVS/NR
	Optional modules (40 credits)		
C13569	Fundamental & Applied Aspect of Plant Genetic Manipulation	10	WY
C135P1	Plant Microbe Interactions	10	AA
C135P2	Molecular Plant Pathology	10	CVS
C135P3	Basic Introduction to Omic Technologies	10	CCF
C13M02	Environmental Pollution and Remediation (YL)	10/20	ST

Semester 6

Code	List of Modules	Credit	Module Convener
	Core YL Research Project		
D23PRO	UG Research Project (YL)	20/40	CVS/NR
	Optional modules (40 credits)		
C136P3	Current Issues in Biotechnology	10	CCF
D235P8	Plants and Their Environment	10	FM
D236Z6	Applied Bioethics: Sustainable Food Production, Biotechnology and Environment	10	EN
C136E6	Environmental Biotechnology	10	TBC2
F83M01	Introduction to Tropical Conservation Science	10	ACA
F84M06	Tropical Ecology	10	ACA
C13M02	Environmental Pollution and Remediation (YL)	10/20	ST

Remark:

For optional module, module doesn't run if less than four students have registered for the module.

9.2 Bachelor of Science (Honours) Biotechnology (Year 2016-17)

Semester 5

Code	List of Modules	Credit	Module Convener
	Core YL Research Project		
D23PRO	UG Research Project (YL)	20/40	CVS/NR
	Optional modules (40 credits)		
C13569	Fundamental & Applied Aspect of Plant Genetic Manipulation	10	WY
C135P1	Plant Microbe Interactions	10	AA
C135P2	Molecular Plant Pathology	10	CVS
C135P3	Basic Introduction to Omic Technologies	10	CCF
D235Z1	Biotechnology in Animal Physiology	10	EN
D23BN3	Molecular Nutrition (YL)	10/20	AC
B13M01	Concepts of Pharmacogenetics	20	BIOMEDICAL

Semester 6

Code	List of Modules	Credit	Module Convener
	Core YL Research Project		
D23PRO	UG Research Project (YL)	20/40	CVS/NR
	Optional modules (40 credits)		
C136P3	Current Issues in Biotechnology	10	CCF
D235P8	Plants and Their Environment	10	FM
D236Z6	Applied Bioethics: Sustainable Food Production, Biotechnology and Environment	10	EN
C136E6	Environmental Biotechnology	10	TBC2
F83M01	Introduction to Tropical Conservation Science	10	ACA
D23BN3	Molecular Nutrition (YL)	10/20	TBC1

Remarks:

For optional modules, module doesn't run if less than four students have registered for the module.

9.3 Bachelor of Science (Honours) Nutrition (Year 2016-17)

Semester 5 - AUTUMN

Code	List of Modules	Credit	Module Convener
	Core year-long Research Project (20 Credits)		
D23PRO	Undergraduate Research Project (YL)	20/40	CVS/NR

	Core year-long Modules (60 Credits)		
D23BN1	Nutrition and Health of Populations (YL)	10/20	CSH
D23BN3	Molecular Nutrition (YL)	10/20	AC
D23M02	International Nutrition (YL)	10/20	SM

	and 10 credits normally chosen from		
D235Z1	Biotechnology in Animal Physiology	10	EN
D235N2	Health Promotion	10	MH

Semester 6 - SPRING

Code	List of Modules	Credit	Module Convener
	Core year-long Research Project (20 Credits)		
D23PRO	Undergraduate Research Project (YL)	20/40	CVS

	Core year-long Modules (60 Credits)		
D23BN1	Nutrition and Health of Populations (YL)	10/20	CSH
D23BN3	Molecular Nutrition (YL)	10/20	TBC1
D23M02	International Nutrition (YL)	10/20	SM

	and 10 credits normally chosen from		
D236Z6	Applied Bioethics: Sustainable Food Production, Biotechnology and Environment	10	EN
D236D2	Nutrition in the Community	10	CSH

Remarks:

For optional modules, module doesn't run if less than four students have registered for the module.

GENERAL STUDIES MODULES (MPU)

All students (Malaysian and International) are required to enrol in General Studies Department modules (**formerly known as Compulsory Subjects**) as a precondition for the award of certificates, diplomas and degrees in Private Educational Institutions (PEI) and Private Higher Educational Institutions (PHEI) under the **Private Higher Education Act 1996**. The University of Nottingham Malaysia Campus (UNMC) is subject to PHEI regulations.

The university is required to provide evidence of completion of compulsory subjects to the relevant Malaysian authorities in order to ensure that students' academic qualifications are fully recognised upon completion of studies.

Note: The new General Studies Department modules (MPU) are only applicable to all students enrolling in Undergraduate studies commencing from 1 September 2013 at any PHEI in Malaysia.

The new General Studies Department modules (MPU) comprise four broad categories. UNMC offer the following modules:

Level	Modules - Malaysian	Modules - International
U1: Appreciating philosophy, values and history	1. Tamadun Islam dan Tamadun Asia (MPU 3122) 2. Hubungan Etnik (MPU 3112)	1. Malay Language Communication II (MPU 3142) 2. Malaysian Studies (MPU 3222)
U2: Mastering humanity skills	1. Subject to modules offered by General Studies Department from time to time. 2. Bahasa Kebangsaan A (MPU 3212) ** <i>COMPULSORY for students who do not achieved credit in Bahasa Melayu subject in SPM exam.</i>	1. Subject to modules offered by General Studies Department from time to time.
U3: Broadening knowledge about Malaysia	1. Subject to modules offered by General Studies Department from time to time.	1. Subject to modules offered by General Studies Department from time to time.
U4: Developing practical community-minded skills	1. Community Service (MPU 3412)	1. Community Service (MPU 3412)

Please refer to the Student Handbook of the General Studies Department on Moodle (http://moodle.nottingham.ac.uk/pluginfile.php/1778637/mod_resource/content/3/UNMC-MPU-handbook%20rev%2028June2016.pdf) for more information. Any enquires, please email to GeneralStudiesDepartment@nottingham.edu.my or contact any of the administrative staff below at room EA30:

Ms. Amisah Mohd Amir Administrator Tel: +603-8924 8244 Amisah.Amir@nottingham.edu.my	Faculty of Engineering: Ms. Maizatul Akmal Nawi Acting Administrative Officer Tel+603- 8924 8247 Maizatul.Akmal@nottingham.edu.my
Faculty of Science: Ms. Rositah Andul Rahman Administrative Assistant Tel+603-8924 8307 Rositah.Rahman@nottingham.edu.my	Faculty of Arts and Social Sciences: Ms. Arina Aziz Administrative Assistant Tel+603-8725 3714 Arina.Aziz@nottingham.edu.my

11 TIMETABLE INFORMATION 2016/17

Please note the following in relation to the teaching timetable

Detailed timetables will be available at the beginning of each Semester.

Students can view the timetables for all campuses from 20 September 2016 on the timetable website

<http://www.nottingham.edu.my/CurrentStudents/StudentRegistry/Timetabling/Timetabling.aspx>

12 TEACHING METHODS

Lectures

Throughout your university career, you will find that lectures are the most common method of teaching. It is most important for you to ensure that you have a set of good clear notes based on the lectures **and** your own reading. As you progress through the second and third years of your degree, you will be expected to do increasing amounts of reading; it is therefore useful to develop your reading skills during your first year. Teaching of some modules is complemented by the use of teaching software.

Hints and tips for making the most effective use of the teaching and learning opportunities available to you are provided in the *School of Biosciences Qualifying Year Handbook* (given to all students at the beginning of their first year), and also the University Study Skills guide at <http://www.nottingham.ac.uk/studyingeffectively/home.aspx>.

NB: books which should be purchased will be identified at the start of teaching - you are advised not to buy any books prior to this unless otherwise indicated in the recommended reading lists at the end of each module synopsis.

Practical Classes

Course requirements may require you to take practical classes. These may involve laboratory experiments or observations and analysis of data obtained during the sessions. Practical sessions provide an opportunity to learn and develop additional skills in techniques, observation and analysis. Practical classes also provide an opportunity to extend your knowledge of topics not covered in lectures. For each practical course you will receive a laboratory manual or collection of schedules which will expand on the learning experience of the course.

Some large first year classes are taught simultaneously in adjacent laboratories. Consult the class lists posted on the notice boards to identify the laboratory you will work in. For each practical class, at least one member of academic staff will always be in attendance. S/he will be accompanied by postgraduate students who work as demonstrators. In some cases, technicians may also be present to assist. The teaching team is present in the laboratory to aid your learning experience, so please seek their help as much as you need, and ensure you carry out your work safely, with no harm to yourself or other students. Practical classes provide a valuable opportunity for you to get to know the academic staff in a less formal way and for them to help you. These classes frequently provide an excellent opportunity for you to raise questions from the lecture course with the member of staff and deal with problems you may have.

For all practical classes, you **MUST WEAR** a suitable full-length laboratory coat, which must be buttoned at all times and suitable footwear such as trainers or flat shoes (open slippers, sandals, flip flops and high heels are not appropriate footwear). You will have been advised about the purchase of the laboratory coat and any other needs. You **MUST** also **WEAR** safety glasses at all times unless advised to the contrary by an academic member of staff.

Safe working and good laboratory practices are essential in the laboratory environment and all laboratory exercises must be formally assessed under the regulations of COSHH. Details of these assessments are noted in the laboratory manual or schedule to draw your attention to specific hazards and the requirements of safe practice. During the introduction to a practical class, the member of staff in charge will give a verbal statement on safety issues.

Food and drink **MUST NOT** be taken into the laboratory.

Assessed Work

Many modules have an element of student-centred learning, especially in Parts I (Year 2) and II (Year 3) of your course. The work involved in these is assessed and forms part of the overall mark for the module. The proportion of the mark allotted to coursework is identified in each module description. Penalties are applied for late submission of coursework (5% per working day), unless there are extenuating circumstances and appropriate documentation is provided.

IT Training

IT is increasingly important as a basis of learning, communication and the preparation of your work e.g. dissertation, BSc project thesis and laboratory reports. It is important that you develop/improve your IT skills as you progress through your course.

Computer-aided Learning (CAL)

Several modules include computer-based teaching material, quizzes, exercises, simulations. In order to use these, you must be registered on the University Network. You may be assessed on some of these packages while using them or in the form of a conventional write-up. You should be prepared to take notes as you work through material on computers.

13 ASSESSMENTS, PROGRESSION, COMPENSATION AND REASSESSMENT

The University Undergraduate Course Regulations apply to all the School's

BSc degrees. The regulations can be found at:

<http://www.nottingham.ac.uk/academic-services/qualitymanual/assessmentandawards/studyregulationsforundergraduatecourses.aspx>

You should note that:

☐ **Examination regulations:** All students **must attend** end of semester examinations, and any other examinations arranged during their programme. All students must also hand in required coursework. Please see following link for details:
<http://www.nottingham.ac.uk/academic-services/qualitymanual/assessmentandawards/assessment-regulations.aspx>)

☐ The pass mark for a module is **40%**

☐ **Progression and Compensation (BSc):** You don't need to pass all modules in order to progress to the next stage of your course. Compensation of failed modules can be achieved in the following ways – if you have:

Regulation 10:

☐ passed modules worth at least **80 credits** and have a weighted average for the stage of at least **40% with no module marks of less than 30%;**

or

☐ passed modules worth at least **100 credits** and have a **weighted average for the stage of at least 50%.**

or

- passed modules worth at least **90 credits**, have marks of **30% or more in modules worth at least 110* credits**, and have a **weighted average for the stage of at least 45%**.

Regulation 11:

Regulation 10 does **not** apply to the final stage of any degree programme nor to any module which is listed in the relevant programme specification as **not compensatable** (e.g. D21BP1, D224G1 and D23PRO). A student who fails a non-compensatable module will not complete that stage without successfully undertaking re-assessment in that module.

- **Reassessment:**

If you do not reach the criteria for progression at the end of stage of study, you have a **right to one-reassessment in each failed module where this might enable a student to satisfy progression requirements**. At the discretion of the School delivering the module, the form of the re-assessment may be different from the first attempt, provided that it tests the same learning outcomes and to the same standard.

For modules which are assessed by both coursework and exam, the School of Biosciences' policy requires that, if the module has been failed overall, **then you must be reassessed in the examination element of that module, even if that component of assessment has been passed**. This policy allows students to maximise their chances of passing the module after reassessment.

In addition, if you have failed the coursework overall (of a module which is assessed by both coursework and examination) you may elect to resubmit remedial coursework. However, if you have passed your coursework overall, you are not entitled to resubmit either the whole coursework or any failed component within your coursework assessments.

If you wish to take up the option of remedial coursework, it is your responsibility to make contact with the appropriate module convener (or his/representative) **within 7 days** of the date of the letter notifying you that you have failed to progress. The module convener will give you a title and submission date for the coursework. Any remedial coursework must be **submitted before the start of the August examination period**. However, individual module conveners have the right to set earlier deadlines at the time of setting the coursework.

- **Progression after reassessment:**

For progression purposes, the higher or highest of the marks obtained in each module (at first attempt or upon re-assessment) are considered and the progression and compensation regulations applied accordingly.

- **Marking Scheme:** see appendices A1 - A6

- **BSc Degree Classification:**

Award of an Honours degree is dependent on completion and submission of a final year project.

When the overall Part I / Part II mark has been computed, it is rounded to provide a single overall integer mark before any degree classification is assigned. Subject to the exception of borderline candidates and those with extenuating circumstances, who may be awarded a higher degree classification, students shall be awarded the class of degree with their overall mark. The classes of honours degree are as follows:-

- First Class – average of 70%+

- Second Class (Division I) - average of 60-69%.
- Second Class (Division II) – average of 50-59%.
- Third Class – average of 40-49%.

Weighting of BSc degrees is Part I (30%) and Part II (70%).

Candidates are regarded as “borderline” and considered for promotion to a degree class higher than that of their weighted average if their average rounded marks is:

- 48/49 Borderline II-2
- 58/59 Borderline II-1
- 68/69 Borderline I
- At the III/Fail boundary there is no borderline

Borderline Profiling

For students entering Qualifying year or Part I from 2015/16 onwards, Schools should use only the standardised weighted profiling system for determining the degree class of borderline students.

A student should be given the higher class if either of the following criteria are met:

- i) Half or more of the final stage credits are in the higher class;
- ii) Half or more of the final and penultimate stage credits are in the higher class.

This does not preclude the consideration of Extenuating Circumstances of students, whether inside or outside the borderline.

[Academic service division – amended 12 Feb 2016:

<http://www.nottingham.ac.uk/academic-services/qualitymanual/assessmentandawards/degree-classification.aspx>]

14 EXTENUATING CIRCUMSTANCES

Policy regarding extensions to coursework on grounds of Extenuating Circumstances, Disability or Specific Learning Difficulties Summary:

- 1) Extensions to coursework will not normally be given unless the student has a specific recommendation from the School's Extenuating Circumstances Committee, or Academic/Disability Support.
- 2) Extensions will not normally be given as a result of short-term illness of less than 7 days unless the module convenor agrees to this.
- 3) Students with Academic/Disability referrals may apply for a short extension to coursework submission on the basis of particular circumstances.
- 4) Students with approved extenuating circumstances may be granted an extension to coursework submission of usually no more than 21 calendar days.

Full details of the school's implementation of University policy is below. Meeting deadlines is an important part of working life. It is important that students develop time management skills and the ability to meet deadlines before undertaking work placements or entering the workforce on graduation. Coursework deadlines are normally set at the start of the module by the module convenor¹, and clearly stated in module documents/introductory teaching sessions. This gives students the opportunity to identify periods of high workload within each semester and plan their time accordingly. Whilst course teams will try to adapt deadlines to avoid coursework 'hotspots', deadlines are set as appropriate for each individual module and it is the student's responsibility to plan their time accordingly.

Extensions to coursework deadlines can be given in limited circumstances – for example, if students have extenuating circumstances, disability or specific learning difficulties. These are dealt with in the following way.

- Extensions to coursework will not be given to students unless they have a specific recommendation from Academic/Disability Support, the School's Extenuating Circumstances (ECs) committee or the module convenor (see below).
- Students with specific recommendations from Academic/Disability Support may request one extension in advance of the deadline, giving justification for why they need it. Students should not expect to be offered an extension, and it is acceptable for the Module Convenor not to allow one, if it is not possible within the module structure – for example, if the work is subject to a very tight marking turn-around period, such as laboratory practical write-ups. In these circumstances, students should be given notice in advance of the deadline that no extensions can be allowed. If the module convenor feels that an extension is appropriate, the following extension lengths, which have been endorsed by Academic Support, will be followed:

Length of Coursework	Extension
Up to 2,500 words (or equivalent)	Maximum of 2 calendar days
2,500- 5,000 words (or equivalent)	2-4 calendar days
Final Year Dissertation	Maximum of 5 calendar days

¹ Where this guidance refers to "module convenor" this can also be taken to include coursework marker/other academic contributor to the module where this person is not the module convenor.

Any further extension would normally only be given on the basis of approved extenuating circumstances.

Any unapproved late submissions will have marks deducted as outlined in the Quality Manual (5% for each working day).

Students who submit coursework late as a result of illness or other circumstances lasting more than 7 days should discuss this with the module convenor or their personal tutor and should submit an EC form and evidence within 7 days of the submission deadline. This documentation will be considered via the normal EC process.

See: <http://www.nottingham.ac.uk/academicservices/qualitymanual/assessmentandawards/extenuating-circumstances-policy-and-procedures.aspx>

- ☐ If ECs are accepted, an extension to the submission will be agreed and any marks that have been deducted for late submission will be reinstated.
- ☐ Any extension (within a teaching semester) for students with ECs will not normally be for more than 21 calendar days, to ensure that all coursework is submitted prior to the coursework return date. Any submission after the return date will not be accepted but a student may be given a first sit opportunity if they have approved ECs.

The completed EC form along with any documentary evidence must be submitted no later than 7 days after the date of the candidate's last assessment to Mrs Tilagavati Narayanan (Tilagavati.Narayanan@nottingham.edu.my) located in the Faculty office. Any claims submitted after this will not be considered unless there is good reason why the candidate could not submit the form earlier.

15 PLAGIARISM, PARAPHRASING AND OTHER ACADEMIC MISCONDUCT

This section is also covered in the Induction and Study Skills handbook. It draws upon information available at the following University Web sources together with guidance from staff in the School of Biosciences.

USEFUL ADVICE FOR STUDENTS

Further advice on how to avoid plagiarism will be provided during the year 1 tutorial module, where you will also be shown how to check your work for plagiarism, using Turnitin.

One good method to avoid plagiarism is to make notes from material you have read and construct your essay / report, in your own words, from these notes. It is tempting (and easy) to copy and paste, but this is unacceptable and constitutes an academic misconduct. It is also poor practice to construct a draft by copying and pasting material from multiple sources, with the intention of then paraphrasing the resulting document. Apart from the fact that the end-product may be disjointed, the paraphrasing is often incomplete and the work submitted may contain elements of plagiarised material. It is, however, acceptable to include relevant figures and tables from published work, as long as you acknowledge their source by citing the primary reference for them. To make a specific point, there may be occasions when you may want to quote an author verbatim; this is acceptable if you put the quotation in inverted commas and give the source.

USEFUL WEBSITES

Academic integrity and plagiarism

www.nottingham.ac.uk/teaching/assessmentfeedback/integrity/index.aspx

Quality Manual

<http://www.nottingham.ac.uk/academicservices/currentstudents/academicappealsmisconduct.aspx>

Studying Effectively

www.nottingham.ac.uk/studyingeffectively

DEFINITION OF AN ACADEMIC MISCONDUCT

Any activity or behaviour by a student which may give that student, or another student, an unpermitted academic advantage in a summative assessment is considered to be an act of academic misconduct and unacceptable in a scholarly community. Such action(s) will be considered under the University's Regulations on Academic Misconduct and this may lead to a penalty being imposed

DEFINITION OF PLAGIARISM

The following definition of plagiarism appears in the University Quality Manual:

Plagiarism: representing another person's work or ideas as one's own, for example by failing to follow convention in acknowledging sources, use of quotation marks etc. This includes the unauthorised use of one student's work by another student and the commissioning, purchase and submission of a piece of work, in part or whole, as the student's own.

Note: A proof-reader may be used to ensure that the meaning of the author is not misrepresented due to the quality and standard of English used, unless a School/Department policy specifically prohibits this. Where permitted, a proof-reader may identify spelling and basic grammar errors. Inaccuracies in academic content should not be corrected nor should the structure of the piece of work be changed; doing so may result in a charge of plagiarism.

Work in any year of study which is not undertaken in an Examination Room under the supervision of an invigilator (such as dissertations, essays, project work, experiments, observations, specimen collecting and other similar work), but which is nevertheless required work forming part of the degree, diploma or certificate assessment, must be the student's own and must not contain plagiarised material.

Possible **penalties** for an academic offence including plagiarism are:

- a) No marks to be awarded in relation to the specific material which is the subject of the act constituting an offence (thus leading to a reduced overall mark for the piece of course work, dissertation, examination question or examination script in which the specific material appears)
- b) Award a mark of zero for the entire piece of course work, dissertation, examination question or examination script in which the academic offence has occurred
- c) Award a mark of zero for the entire module in which the academic offence has occurred
- d) Award a mark of zero for all the assessments in the semester (even where this will lead to a reduction in degree class). In the case of year-long modules, this penalty may affect both semesters
- e) Award a mark of zero for the whole year (even where this will lead to a reduction in degree class)
- f) Require the student to take reassessments (as a result of being awarded zero marks) in the following session before being allowed to progress or complete their course
- g) Require the student to register with the University and enrol on modules in which they need to take reassessments (as a result of being awarded zero marks) in the following session before being allowed to progress or complete their course
- h) Terminate the student's course
- i) Withdraw the award of a degree or other qualification from, and issue an amended transcript to, a former student of the University

Full details of possible School and University penalties can be found at:

<http://www.nottingham.ac.uk/academicservices/currentstudents/academicappealsmisconduct.aspx>

ACADEMIC MISCONDUCT

Any activity or behaviour by a student which may give that student, or another student, an unpermitted academic advantage in a summative assessment is considered to be an act of academic misconduct and unacceptable in a scholarly community. Such action(s) will be considered under the University's Regulations on Academic Misconduct and this may lead to a penalty being imposed.

Here is a range of cheating behaviours:

1. False citation (i.e. attributing work to the wrong source)
2. Plagiarism
3. Using unauthorised sources or notes in examinations or tests
4. Dishonestly obtaining material or information prior to examinations
5. Copying from other students
6. Permitting other students to copy your work
7. Soliciting work from others (e.g. individuals, 'editors' or essay banks etc)
8. Submitting your own previously assessed work without acknowledgement (auto plagiarism)

Unauthorised Collaboration, or Collusion, occurs where:

Collusion: cooperation in order to gain an unpermitted advantage. This may occur where students have consciously collaborated on a piece of work, in part or whole, and passed it off as their own individual efforts or where one student has authorised another to use their work, in part or whole, and to submit it as their own.

Note: Legitimate input from University tutors or approved readers or scribes is not considered to be collusion.

Fabrication may take various forms but is essentially concerned with manufacturing aspects of the work produced. For example, the insertion of made-up information, data, sources, quotes, anecdotes or analysis would all amount to fabrication

Recycling or unauthorised, multiple submissions.

The multiple submissions by a student of their own material is not, in itself, considered as academic misconduct. Submission of material that has been submitted on a previous occasion for a different summative assessment is, however, unlikely to be academically appropriate. The merit of such material will therefore be a matter of academic judgement and it may attract fewer (or no) marks than would have been the case if it had not been assessed previously

Note:

Plagiarism is regarded as a serious academic misconduct by the University and will be penalised accordingly. Plagiarism can be easily identified by entering suspect passages into search engines. Specialist search engines (e.g. Turnitin) are available to check all submitted work against previously published sources, including coursework submitted by students in the current or previous years. The School of Biosciences uses Turnitin to assist academic staff detect plagiarism; students may be required to submit all coursework in electronic form to facilitate automatic on-line detection of plagiarism. All BSc Research Projects must be submitted electronically to be checked by Turnitin along with the necessary hard copies (see Guidelines for BSc Research Projects).

If a student is required to attend an Academic Misconduct interview within the School for any suspected academic misconduct his/her tutor will be informed of this, together with the Head of School (or nominee), module convenor (or nominee) and the School Manager for Academic Administration (or nominee).

GUIDANCE TO HELP YOU AVOID COMMITTING PLAGIARISM

1. You are allowed to use information from other people's work provided you acknowledge the source. This can apply to a statement, Table or Figure. The best way of doing this for Tables and Figures is to add: "After Smith (1988)" or "Modified from Smith (1988)", and include the reference in your reference list.

2. If you are discussing something somebody else has said, you can say, for example: Smith (1987) claimed that coral reefs in the Pacific were damaged by high temperatures in 1975. Or: It has been claimed that high temperatures in 1975 damaged coral reefs in the Pacific (Smith, 1975).

3. If you wish to quote from previous work you should put it in quotation marks, e.g. Smith (1980) described the outcome of unprecedented high temperatures on coral reefs as: "A disaster for the marine communities in the coastal regions of the Indo-Pacific", and then stated that: "The phenomenon appears to be due to unprecedented high temperatures".

For information on paraphrasing see 8 and 9 below.

4. Authors should be cited in text either as: Smith (1975), Smith and Allen (1978), Allen (1987, 1989), or as (Smith, 1975; Smith and Allen, 1978; Allen 1987, 1989). Note that these are in chronological, not alphabetic order. When more than two authors are quoted, this should be in the form Allen *et al.* (1993) in the text, but the full reference should be given in your reference list.

5. In your "References" or "Literature cited" section, the following style (authors, date, title, journal, volume number, page numbers) should be used and references should be listed alphabetically. Provided you are consistent, you may also use any other accepted style - see journals in the library.

Smith, A. J. and Allen, N. B. (1986). Temperatures and coral reefs. *Journal of the Marine Biological Association* 86: 101-123.

Smith, A. J., Jones, K. L. and Allen, N. B. (1988). Death of corals due to high temperatures. *Thermal Biology* 27: 19-34.

6. For books, the following style (author, title underlined or in italics, publisher, place of publication) applies:

Allen, N. B. (1992). *Coral Reef Biology*. Blackwells, London.

7. For chapters in edited volumes, the following style (author, date, title of chapter, title of book underlined or in italics, editors, page numbers, publisher, place of publication) applies:

Smith, A. J. (1987). Temperature and bleaching in corals. In: *Coral Reef Biology* (N. B. Allen and C. K. Hodges, eds.), pp. 65-90. Clumber Press, New York.

8. Paraphrasing, i.e. verbatim or almost verbatim restatement of a passage is a form of plagiarism frequently used in essays and dissertations. The following is paraphrased from C. H. Gordon, P. Simmons and G. Wynn (date unknown). *Plagiarism - What It Is And How To Avoid It*. University of British Columbia.

Students often ask "How much do I have to change a sentence to be sure I'm not plagiarising?" If you have to ask, you are probably about to commit plagiarism! There is no set number of words that you need to change or add to make a passage your own – the originality must come from the development and expression of your own ideas.

Original work demands original thought. You should try and separate your ideas from those of others. If you use another author's conclusions then acknowledge them. If you come to the same conclusions as another author you should still acknowledge them. Once a piece of work is complete, look at each part and ask yourself if the ideas expressed are entirely your own, and whether the general language

or choice of words is your own. If the answer to either is "no" the work should be credited to the original author

9. Examples.

9.1 Original

From Smith (1992):

The author has found that corals respond to high temperatures by expelling their zooxanthellae. This causes them to go white, a phenomenon known as "bleaching." Such corals soon become covered in algae, which makes it difficult for new coral planulae to settle and start a new colony (Davies, 1980). The phenomenon of bleaching is similar to the effect of a crown-of-thorns starfish (*Acanthaster planci*) attack where the polyps are digested by enzymes secreted onto the colony surface (Brown, 1990). As Jones (1972) found, *A. planci* poses a severe threat to corals in the Indo-Pacific. The recent occurrence of high numbers of these starfish on reefs has been correlated to run-off from land which contains high levels of plant nutrients (Jones, 1986). The subsequent increase in the number of algae apparently enhances the survival of the filter-feeding larvae of the starfish.

To include this text verbatim in your own work, *without* placing the entire paragraph in quotation marks and acknowledging Smith (1992) (see 3 above) would constitute plagiarism.

9.2 Paraphrased version

Paraphrased from Smith (1992):

Smith (1992) has found that corals respond to high temperatures by expelling their zooxanthellae. This phenomenon, known as "bleaching", causes them to go white. Such corals quickly become covered in algae and this makes it difficult for new coral planulae to settle and begin developing a new colony (Davies, 1980). Bleaching is similar to the effect of a crown-of-thorns starfish (*Acanthaster planci*) attack. Brown (1990) notes that this is where the polyps are digested by enzymes secreted onto the colony surface. Jones (1972) found that *A. planci* may be a severe threat to corals in the Indo-Pacific. Recently high numbers of these starfish on reefs has been correlated to run-off from land with high levels of plant nutrients (Jones, 1986). The increase in the number of algae apparently enhances the survival of the filter-feeding larvae of the starfish.

To include this text in your own work, even *with* the initial acknowledgment Smith (1992) would constitute plagiarism since it reads as if only the first sentence is taken from Smith, and the rest of the references (Davies, Brown and Jones) have been sourced and read by you and that the development and expression of the text is your own original work. 32

9.3 Unacknowledged version (i.e. submitting this as if it were your own thoughts or work)

The presence of high numbers of crown-of-thorns starfish (*Acanthaster planci*) on reefs has been connected to run-off from land containing high levels of plant nutrients. This causes an increase in the number of algae which results in better survival of the filter-feeding larvae of the starfish. The starfish kills corals by secreting digestive enzymes onto their surfaces. *A. planci* poses a severe threat to corals in the Indo-Pacific and their effect is similar to that caused by "bleaching", a phenomenon caused by high temperatures which results in zooxanthellae being expelled. Subsequently the dead corals become covered in algae which makes it difficult for a new colony to start.

To include this text verbatim in your own work, would constitute plagiarism since there is no acknowledgment of Smith (1992).

9.4 Acceptable version (based on information from Smith, reading the cited references yourself and drawing upon other work)

Smith (1992) quoted Jones (1972, 1986) in suggesting that the crown-of-thorns starfish poses a threat to corals in the Indo-Pacific, and that their recent upsurge may be due to an increase in plant food levels caused by an input of nutrients from land. Brown (1990) found that these multi-armed starfish killed corals by everting their stomachs onto the coral colony surface and secreting an enzyme to digest the tissues externally. The resulting "bleaching" effect is similar to that which occurs when corals are exposed to high temperatures and the zooxanthellae are expelled (Smith, 1992). Davies (1980) found that the settlement of algae on the colony surface made it difficult for new coral larvae to settle and, although fish often grazed the algae continually, he found they could not keep these under control. Recent studies have shown that plagues of crown-of-thorns starfish may be a natural phenomenon, as the fossilised remains of previous outbreaks have been found in rocks millions of years old (Cromer, 1994).

To present your work like this would not constitute plagiarism.

Note that all the references and authors used in this document with the exception of Gordon *et al.* are fictitious.

PLEASE CONSULT YOUR TUTOR IF YOU ARE STILL IN DOUBT ABOUT PLAGIARISM

16 PERSONAL AND ACADEMIC DEVELOPMENT

This table sets out the goals that you should strive for as you progress through your degree. If you can achieve these you will be well prepared for the diverse opportunities that lie ahead

	Qualifying year Year 1	Part I Year 2	Part II Year 3
Learning experience	<ul style="list-style-type: none"> Establish a strong factual base Learn the basics of the scientific method and develop a questioning approach 	<ul style="list-style-type: none"> Link knowledge from diverse sources and develop an ability to relate information Develop a critical and analytical approach to information 	<ul style="list-style-type: none"> Develop the ability to handle complex Information Evaluate information and synthesise ideas Develop a creative approach to problem solving
Skills acquired	<ul style="list-style-type: none"> Cope with varying lecture styles Make effective use of library and IT facilities Acquire basic laboratory skills 	<ul style="list-style-type: none"> Consolidate information skills with extensive use of library and IT Enhance practical skills Enhance presentation skills Organise study and manage time to meet deadlines Appreciate the importance and value of team work 	<ul style="list-style-type: none"> Develop a mature approach to study Exhibit strong self-discipline and Commitment Clearly articulate knowledge and understanding Respect the views of others and engage in reasoned argument
Developing independence	<ul style="list-style-type: none"> Learn to combine teacher-driven study with work based on individual initiative 	<ul style="list-style-type: none"> Make independent use of library and other information resources Acquire experience in a range of learning styles 	<ul style="list-style-type: none"> Take responsibility for self-learning Demonstrate individual style and flair Exhibit professionalism and ownership of subject

17 THE PERSONAL ACADEMIC DEVELOPMENT

Several mechanisms are available throughout your studies to help you achieve the goals outlined in the previous section. Together, they make up a Personal Academic Development scheme. The way in which you use them will depend on your own needs and circumstances. By the time you graduate, you will have acquired a set of resources, some electronic and some in other formats, which you can use as the basis for promoting yourself and your achievements.

The scheme has three main purposes:

- to provide you and the School with complete documentation of your academic record and performance so that your progress can be monitored while you are at the University
- to define and document the minimum level of pastoral care which the School will provide for you, including academic and personal support
- to encourage you to reflect upon your progress at regular intervals and record self-evaluations in relation to your academic work, leisure interests and general skills. These activities will help you to improve your learning, focus your thinking about career options and build up an effective CV. They will also contribute to tutors' references for you

Personal Tutor

You will be allocated a personal tutor when you first register in the School. Details of how the tutorial system works are given in the *Study Skills and Other Useful Information booklet* but you should expect your tutor to take a close interest in your academic and personal development. Your tutor may teach modules that relate to your degree programme or may come from a separate area within the School. In either case, s/he can offer you a great deal of guidance, wisdom and support. It is worth remembering that members of academic staff have several roles besides teaching and tutoring. They are actively engaged in research, which probably involves supervision of research students and postdoctoral researchers, and also have various administrative functions vital for the smooth running of the School.

You can expect your tutor to support you in the following ways:

- take an interest in your academic progress, check on your well-being from time to time, and offer you opportunities to discuss matters of concern. Provide you with your examination marks at the end of each semester and help you to reflect on the feedback you received.
- be available to discuss your choice of modules
- in the event of illness and absence for other justifiable reasons, your tutor should be informed of the circumstances. S/he will also be made aware of any lapses in your attendance at classes which give cause for concern
- provide a personal reference for you, for example to obtain vacation work or when you seek employment after graduation. This is a good reason for making effective use of meetings and establishing a sound working relationship. A supportive referee needs to have good information and will try to set your academic qualities and achievements in a wider context.

Meetings with your tutor may be scheduled or take place less formally at the request of either one of you. During the first semester, scheduled meetings will occur as part of D21BP1. During the rest of your course, the University requires that you meet your tutor at least three times a year. This will normally include meetings at the start and end of each semester, the latter being when you receive your module results and discuss your progression. However, this is a minimum and you would be wise to have more frequent contact.

Make use of all these opportunities. Check your email every day and be sure to respond to requests for meetings, either scheduled or informal. Apart from being discourteous, missing a meeting may mean losing out on vital information or decisions. If for any reason you wish to change your tutor, you should make your request to the Senior Tutor or through contact the Faculty Office.

Career Advice and CV Development

Each year during your undergraduate course, a special session will be provided by University Careers Advisor(s) responsible for Biosciences students to guide you in developing your longer-term aims and interests. Careers Advisers do "give advice on how to set about assessing and building up an account of your achievements and skills in your curriculum vitae (CV)."

During Years 2 and 3, your tutor will be able to comment on drafts of your CV as you complete them and further specialist help is always available from the University Careers Advisory Service.

Confidentiality and Records

Your tutor will respect the confidential nature of your conversations. If at any time s/he judges that it would be in your best interests to inform other members of School or University staff, s/he will advise you of this and suggest how this can best be achieved. Your tutor will always seek your agreement before involving anyone else and will discuss with you when, to whom and how any sensitive information might be conveyed.

It is advisable to make a short record of all personal tutorials or other meetings. The record may take whatever form you wish, ranging from a brief note (perhaps simply recording the date of the conversation) or general summary, to something more detailed. You should not write down anything you would not want other tutors to read, although it may be important to signal the existence of personal or confidential matters affecting your work. Your tutor can help you by suggesting appropriate wording.

18 ACADEMIC TUTORING AND SCHOOL OF BIOSCIENCES

Academic tutoring is the support which the School provides to students in addition to formal teaching. It is complementary to the University's central support services and pastoral care provision.

The objectives of Academic Tutoring are as follows:

- Helping students to acquire the necessary study skills to pursue their studies successfully.
- Addressing problems of knowledge and understanding of the subject experienced by individual students.
- Addressing the problems of individual students with particular aspects of their modules.
- Providing students with an overview of their academic progress at module and programme level.
- Assisting students with their academic choices e.g. module enrolments, programme pathways.
- Providing students with feedback on their assessments so as to improve future performance.
- Contributing to the acquisition of key employability skills.

The School takes its responsibility for academic tutoring very seriously and engages in the following activities to ensure that students are properly supported:

- One-to-one meetings with the Personal Tutor, for the personal development and pastoral support aspects of tutoring.
- One-to-one meetings with Personal Tutor for academic tutoring e.g. guidance on module choice.
- Meetings with Course Managers for module guidance, either informally or at School Module Enrolment Days.
- Tutorials/seminars occurring as activities within some or all of the modules comprising a degree programme.
- Credit-bearing academic tutoring and study skills modules e.g. Academic Development and Employability D21BP1.
- Study-skills embedded in academic modules e.g. D211F3 The Biosciences and Global Food Security; D224P6 Molecular Techniques in Biosciences; D224G1: Professional Skills for Biosciences.
- Study-skills embedded in student's undergraduate project work or postgraduate dissertation.
- Drop-in support sessions based around mathematics and statistics.
- Written feedback on formative or summative assessments provided by module coordinators/tutors. This is extensive in the School and is provided through:
 - individual feedback on coursework provided by written comments and mark allocation based on transparent marking schemes
 - generic feedback forms posted on Moodle one week after each exam board which
 - a) highlight examination questions on which students' performance could be improved
 - b) suggest strategies for improving performance in those questions
 - c) give general comments about technique.
 - full and constructive comments provided by exam markers, to which students have access through individual appointments with module conveners
 - module report forms which are collated by Module Conveners from students' comments and made available through Moodle.
- Student led-seminars and peer support groups e.g. D224E2 Communicating Science.
- Appointments with module coordinators/tutors; specifically the School provides three formal opportunities per year for students to obtain detailed module information and advice at its Module Registration Days.
- 'Office hours' system for accessing module coordinators/tutors.
- The use of a flexible and comprehensive virtual learning environment (Moodle), together with on-line discussions between tutors and students.

- Links to central support services e.g. Academic Support, the Counselling Service and the Student Services Centre.
- Assistance and guidance on academic administrative matters provided by the School Office.
- Encouraging students to make use of central on-line study skills resources e.g. 'Study Skills' <http://www.nottingham.ac.uk/studyingeffectively/home.aspx>
- Assistance with any personal support or guidance matters from the School Senior Tutor

19 ATTENDANCE MONITORING

Students must attend all teaching activities necessary for the pursuit of their studies, undertake all associated assessments and attend meetings and other activities as required by their School or the University. Where students face difficulty in attending sessions or undertaking assessments and examinations, it is their responsibility to inform their School of this fact and to provide a satisfactory explanation. Please see <http://www.nottingham.ac.uk/academicservices/qualitymanual/registrationattendanceandstudy/regulations-governing-attendance-and-engagement.aspx> for further details on attendance regulations at the University.

Individual Schools and Departments have systems in place to monitor attendance during the academic year. Unauthorised absences are reported to the Registry and recorded as appropriate. Where students are absent without authorisation, to the point that it is not possible to continue with the course, the Registry will write to the student stating that they will be deemed to have withdrawn from the University and their student record will be amended to show that they have withdrawn.

Where required the University will report non-attendance to appropriate authorities.

20 COMPLAINTS AND APPEALS PROCEDURES

Details of the University's Complaints and Appeals Procedure can be found at: <http://www.nottingham.ac.uk/academicservices/qualitymanual/assessmentandawards/academicappealpolicyandprocedure.aspx>

The procedure regarding a complaint concerning your course is that in the first instance you should contact the lecturer concerned. If the matter cannot be resolved, the next points of contact would be:

- ☐ *Module Convener*
- ☐ *Course Manager*
- ☐ *Head of School*
- ☐ *Student Year Representative (names are on the Learning Community Forum notice board)*

Students are encouraged to involve their Personal Tutors at any stage, whether the matter of concern is of an academic or personal nature. Students also have the right to bring matters of concern before Learning Community Forum.

21 STUDY ABROAD OPPORTUNITIES

INTER-CAMPUS

EXCHANGE About

Students who are studying at The University of Nottingham Malaysia Campus can apply to study at our overseas campuses in China and the UK for a period of one semester or one academic year through the Inter-campus Exchange Programme.

To be eligible to apply to the programme:

- students must have completed at least one year of their degree study at the Malaysia Campus.
- students have to obtain a passing mark of minimum 55% average in year one order to progress onto the exchange scheme. No students taking resits are permitted to progress onto the exchange scheme.
- students studying for an undergraduate degree programme which is also offered at either the China Campus or the UK Campus.

Before you apply

Choosing to study abroad is a big decision, before you take the plunge, here are a few things you should do:

- Attend the exchange programme information session.
- Consider your exchange options, please refer to study abroad opportunities by school.
- Research the university/campus that you intend to go for exchange by finding out about courses offered, fees, English language requirements etc.
- Discuss with your parents/guardian about funding your study abroad.
- Consult your Director of Studies/personal tutor for module selection at the host university or any academic enquiries. It is applicant's responsibility to ensure that there are suitable modules for their degree programmes at the host university.

For details of Study abroad opportunities please contact our International Office and for informal inquiries please contact Prof Festo Massawe, Head of the School of Biosciences.

22 CHANNELS OF COMMUNICATION

Dissemination of information is an on-going process during the academic year; this will come from both the School Office and academic staff. We use several ways to give out information.

- **Email** - Email is the normal means of communication to individuals or class groups; your tutor and module conveners will email regularly and it is also a good way for you to contact academic staff. However, this and other media should not detract from personal meetings, which are necessary for the communication of several matters including the conveyance and discussion of examination.
- **Moodle** - Moodle is the online learning environment across the University. The resource allows you to access lecture notes, find links to external learning resources, access self-test exercises and assessments, participate in online learning activities, submit assignments and collaborate on group projects. You can log in using your University username and password the day after you have completed your registration online and access to it at:
<https://moodle.nottingham.ac.uk/login/index.php>
- **The Student Portal** - The Portal is a central part of the University's communication system for staff and students. Make sure you have access to it at:
<http://my.nottingham.ac.uk>
- **Social Media** - The University of Nottingham uses the latest technology to bring Nottingham to life and to ensure that you can experience and interact with the University community at any time, see: www.nottingham.ac.uk/connect/nottinghamconnect.aspx

It is your responsibility to check all these sources of communication on a frequent basis; the School of Biosciences cannot accept responsibility should you fail in this obligation.

23 STUDENT/STAFF CONSULTATION

The courses you are taking have evolved over a number of years and incorporate many features arising from student feedback and evaluation. Each department has its own procedures for allowing students to participate in the evaluation and future development of courses.

Broadly, two channels exist:

- feedback questionnaires which enable you to comment on the content, style and objectives of modules; we urge you to take the time and effort to complete these so you and future students can play a role in improving our teaching
- the Learning Community Forum (LCF) consists of representatives of undergraduate students and teaching staff who discuss a wide range of academic and non-academic matters. Anyone who has comments, criticisms or suggestions that they wish to be discussed should contact one of the representatives, whose names will be found on the School notice board on the ground floor of Block B.
- The Student Association also elects student representatives to the School Board and other School committees. If you want to influence academic procedures in the School and University on behalf of your fellow students, you must join the Association first.

24 OFFICE HOURS

The Faculty office hours policy, see below:

- Appointments for meetings with staff should be requested by students by email or in person (by phone or office notice board). Requests by email can be made at any time.
- *Staff should respond to such requests by email within two working days (both during term and outside term-time). Staff are not obliged to send their responses outside of normal working hours, nor during official University holidays, nor when on vacation.* They should put out-of-office messages on their emails during vacations and respond within two working days upon return.
- Following a request, appointments should be arranged with the student at a mutually convenient time, normally to be held within three working days of the request.
- Once an appointment has been made, both the staff member and the student are expected to honour the appointment. Should either be unable to attend they should email to cancel prior to the meeting.
- Staff have the option of restricting their availability to students to particular days or times of day (other than in emergencies). In this case, they will communicate their preferred availability to their tutees and to other students they see on a regular basis.

25 QUALITY ASSURANCES

The primary aim of the University of Nottingham is to sustain and improve the high quality of its provision as one of the leading research-led universities in the United Kingdom. It is also committed to providing a learning environment of the highest quality for students, in which first class teaching is underpinned by excellent research. The School of Biosciences endeavours to maintain these goals in the Biosciences, where relevant in collaboration with other schools, in the following ways:-

- by recruiting motivated students with a proven record of high level of learning;
- by providing a broad education across the discipline;
- enabling the development of an analytical and critical appreciation of scientific ideas and problem solving;
- providing a learning experience enriched by an active research environment;
- enabling the development of independent learning and skills for a wide range of careers within and outside the biological sciences;
- to ensure that students receive appropriate support and guidance in their academic development and career planning;
- to identify and support the academic and pastoral needs of individual students;
- to provide a flexible, effective and adequately resourced learning environment, and
- to maintain and improve teaching and learning through effective management structures in line with the University Quality Manual.

As part of an ongoing process of improving quality, some of our teaching facilities have been recently refurbished and modernised. We look to our students to help us maintain these areas in good condition for the benefit of future generation.

26 COURSEWORK AND EXAMINATION FEEDBACK

Feedback is generally provided in three main forms i.e. on i) assessed coursework, ii) examination performance and iii) general aspects of each module. For each module, in addition to the individual marks given for assessed coursework, you will receive an overall module mark and the end of each semester you will receive a set of module marks for the semester from your personal tutor. Your module marks are confidential and not shown to other students. Individual mark components (e.g. coursework marks) are also confidential; the only exception to this is when you receive a mark for a piece of 'group work' in which all members of your group receive the same mark. The sections below provide further details about feedback.

Coursework Feedback

Coursework feedback is normally provided through written comments on your work. For many pieces of coursework, a cover sheet will be returned with your work to explain the mark received and give advice on how your work could be improved. For other pieces of non-examination assessed work, it may not be feasible to provide written comments on your work, for example, a group oral presentation; in such cases, feedback may be provided verbally or by email. Feedback for other assessed work e.g. laboratory practicals, may be provided in other ways as appropriate to the assignment set. Whilst the manner by which you receive coursework may vary depending on the type of coursework set, the purpose of the feedback is to provide a mark for the work together with constructive comments to help improve your performance in future assignments. If you wish to discuss your performance in any assessed work, you should contact the module convenor.

Module convenors will set a date by which you must submit coursework and a date when you can expect to receive feedback on your coursework. This information will be provided when the module convenor sets the piece of work. In normal circumstances, marked coursework and associated feedback should be returned to students within 21 days of the published submission deadline, i.e. students submitting work before the published deadline should not have an expectation that early submission will result in earlier return of work. See details

<http://www.nottingham.ac.uk/academicservices/qualitymanual/assessmentandawards/feedback-to-students.aspx>

Examination Feedback

After each of the main examination periods, students are advised that examination feedback will be posted on Moodle. This will include: i) feedback on examination questions on which students' performance could be improved, ii) suggested strategies for improving performance in those questions and iii) general comments about examination technique etc. Student wishing to discuss their examination performance should contact the relevant module convenor(s).

General Feedback

A copy of the Module Report Form, which is a summary of the discussion/feedback with students at the end of each module, can be found in the Moodle folder for the module. This feedback sheet is used by module convenors to identify areas of the module which students felt worked well, and areas which could be improved; in the latter case, the module convenor will make appropriate academic adjustments to the module for the following academic session. The areas of feedback covered by the module report form follow the headings detailed in the Module Report Form. The University's Quality Manual provides information on good practice for feedback on assessed work and what you can expect to receive as a student at the University of Nottingham – see

<http://www.nottingham.ac.uk/academicservices/qualitymanual/assessmentandawards/feedback-to-students.aspx>

27 STUDENT SERVICES/DEPARTMENTS

27.1 UNDERGRADUATE ADMINISTRATION

All School undergraduate administration is organised by the Faculty Office (Block B). Any changes in personal details (change of address, home or local etc.) **must** be notified to the Office.

General enquiries and queries regarding registration for modules and examination are also dealt with by the Faculty Office.

Financial matters (grants, loans etc.) are the concern of the Finance Office - (Central Administration Building).

27.2 LIBRARY

Library Services is responsible for managing information resources for learning, teaching and research and providing support on their use.

The core collection covers materials that meet the taught courses offered by the university with generous allocations in developing resources required for research purposes.

The library is proactive in developing a wide range of electronic resources and in promoting and guiding the use of information resources, including:

- ☐ subject-based reference enquiry services.
- ☐ internet gateway services.
- ☐ subject-focused academic support services.

See: <http://www.nottingham.edu.my/IS/LibraryServices/index.aspx>

During Semester 1 you should attend an introductory lecture provided by the appropriate library followed up later with practical sessions or seminars designed to familiarise you with the resources of the library.

Learning these basic information retrieval skills is essential - you will need them for essays and projects throughout your course.

As you progress, more specialised studies are undertaken and you must become familiar with the experimental data published in various journals. Acquaintance with published research provides the foundation for most final year research projects. You should not forget to read the more popular scientific press such as New Scientist or Scientific American, as well as those appropriate to your discipline.

Circulation Desk

The Circulation Desk provides general support for the library needs of both staff and students.

Location: Level B, Block G, Library

Direct Line: +6 (03) 8924 8318 (within campus: Ext 8318)

Email: libraryservices@nottingham.edu.my

The Circulation Desk is staffed between 8:30am and 9pm, weekdays; and between 10am and 6pm, weekends. It is closed on public holidays.

Reference Desk

The Reference Desk offers reference services and helps users locate answers to their questions and use a wide range of library resources in print and electronic formats.

Direct Line: +6 (03) 8924 8319 (within campus: Ext 8319)

Email: ITServiceDesk@nottingham.edu.my

The Reference Desk is staffed between 11am and 3pm, on weekdays only.

Library

Last entry to the library is 15 minutes before closing time. Please note that when the Customer Services Counter (including the self-service machine) is closed, no lending services and cash transactions may be carried out.

Days	Library	Customer Services Counter
Semester		
Monday - Friday	8.30 am - 11.00 pm	8.30 am - 8.45 pm
Saturday & Sunday	10.00 am - 6.00 pm	10.00 am - 5.45 pm
Vacation		
Monday - Friday	8.30 am - 7.00 pm	8.30 am - 6.45 pm
Saturday & Sunday	10.00 am - 6.00 pm	10.00 am - 5.45 pm
Exam period (Semesters 1 & 2)		
Monday - Friday	8.30 am - 2.00 am	8.30 am - 9.45 pm
Saturday & Sunday	10.00 am - 11.00 pm	10.00 am - 5.45 pm
Public Holiday Closed		

Learning spaces

Last entry to the Learning@The Core is 15 minutes before closing time. Please note that when the student adviser's desk is closed, no lending services may be carried out.

Days	Learning@The Core	Learning@Vetro
Semester		
Monday - Friday	10.00 am - 10.00 pm	24 hours
Saturday & Sunday	10.00 am - 10.00 pm	24 hours
Vacation		
Monday - Friday	10.00 am - 10.00 pm	24 hours
Saturday & Sunday	10.00 am - 10.00 pm	24 hours
Exam period (Semesters 1 & 2)		
Monday - Friday	10.00 am - 12.00 am *	24 hours
Saturday & Sunday	10.00 am - 12.00 am *	24 hours
Public Holiday Closed		

* Subject to change.

IT Service Desk

Monday - Friday
8.30 am - 7.00 pm
Saturday & Sunday
9.00 am - 5.30 pm
Public Holiday Closed

Loan laptops

Laptop loans to students

Students can borrow laptops for part of the day. These laptops and its accessories (Power and VGA Adapters) can be borrowed from the circulation desk or student adviser's desk at Learning@The Core. The laptops are only for use in the library or Learning@The Core and cannot leave each respective building once borrowed.

Tablet loans to students

Students can borrow tablets and its accessories (Power and VGA Adapters) for part of the day at the Learning@The Core. These items can be borrowed from the student adviser's desk and are only for use at the Learning@The Core and cannot leave the building once borrowed.

Borrowing

You must have a valid University ID card and a University username and password to borrow and use a laptop, tablet and their accessories (Power and VGA Adapters).

For Library, the conditions for borrowing a laptop are covered in the Borrower's Agreement for the Library Laptop Loan Service. For Learning@The Core, the conditions for borrowing a laptop or tablet are covered in a separate borrower's agreement.

You can only have one laptop or tablet checked out at one time and the loan is not transferable. A laptop or tablet can be borrowed within several three-hour slots and can be renewed only once on the same day.

A. At the Library

A laptop can be borrowed within several three-hour slots and can be renewed only once on the same day.

The three-hour time slots for weekdays and weekends are as follows:

Monday to Friday	Saturday & Sunday
8.30am – 11.30am	10.30am – 1.30pm
11.30am – 2.30pm	1.30pm – 4.30pm
2.30pm – 5.30pm	
5.30pm – 8.30pm	

B. At Learning@The Core

Laptops, tablets and their accessories (Power and VGA Adapters) are available for borrowing from the student adviser's desk at

Learning@The Core within several three-hour slots, starting from 10.00am, on weekdays and weekends.

Using the laptop and tablet

Designated laptops with relevant labels and numbering can only be used in the library and Learning@The Core. While, tablets can only be used in the Learning@The Core. Keep the laptop with you at all times as you are personally responsible if it is lost, stolen or damaged.

The hard drive cannot be used for temporary or permanent storage of files. Security software reconfigures the laptop and tablet each time it's rebooted erasing any files on the hard drive. Laptop and tablet plug-in points are available at all floors of the library and discussion tables of Learning@The Core. Wireless access to the university network is available at the library and Learning@The Core.

Please ask staff at the circulation desk or student advisers at Learning@The Core for advice on using the laptop or tablet or contact IT Support Helpdesk at 03 8924 8199.

Returning

Library laptops must be returned in person to the circulation desk and cannot be returned anywhere else. While, Learning@The Core laptops and tablets must be returned in person to the student adviser's desk and cannot be returned anywhere else.

Laptops, tablets and all their accessories must be returned on time.

You must report any problems with the laptop to Library staff or student advisers when returning it.

Fines

Laptops and tablets are free to borrow, although there is RM10 fines per hour or part of an hour if returned late. Any damage to the laptops and tablets may incur reimbursements of up to RM1,000.

A. At the Library

Late returns of laptop set (laptop, power supply adaptor, mouse) will incur a RM10 fine per hour or part of an hour.

Non-return will incur a fine of RM4,500 for the library laptop and RM300 for the power supply adaptor. Any damage to the library laptop may incur reimbursements of up to RM1,000.

B. At the Learning@The Core

Late returns of laptop, tablet, power supply adaptor or mouse will each incur a RM10 fine per hour or part of an hour.

Non-return will incur a fine of RM4,500 for the Learning@The Core laptop, RM200 for the laptop power supply adaptor, RM2,500 for the tablet, RM 300 for the tablet power supply adaptor and RM50 for mouse.

Any damage to the Learning@The Core laptop or tablet will incur reimbursements of up to RM1,000.

Renewals

Laptops and tablets may be renewed if there is no booking for the item. A renewal can only be done once in a day which means that the maximum number of hours a laptop can be checked out by a user is six hours per day.

Library laptops must be returned to the circulation desk, and Learning@the Core laptops and tablets must be returned to the student adviser's desk before they can be checked out again.

27.3 IT FACILITIES

You should aim to enhance and develop your keyboard, word processing and information processing skills and apply them in the preparation of assessed essays and projects. Dissertations and other forms of assessed coursework must be presented in typed or computer-printed form. Poor presentation, spelling and grammar may be penalised by examiners; word processing software can make a contribution on all those fronts as well as greatly facilitating the editing process.

Members of staff marking coursework will point out errors in spelling, grammar, structure and reference citation. Note these carefully and use them to improve your writing skills. If you have particular difficulty, consult your Tutor - do not let a problem with language prejudice your performance.

Information Services (IS) maintains networked PC user areas (Computer Rooms) which are used for teaching, computer-assisted learning, statistical analysis, modelling and general IT applications at all campuses. IS manages the computing service and provides full printout facilities. You will be given an introduction to this system and the facilities during the first week of Semester 1.

See: <http://www.nottingham.edu.my/thelibrary/Using/index.aspx>

Once you have registered with the University you will be given a username and password. Undergraduate usernames give access to electronic mail, the Internet and connection to remote information services. The campus is wireless in all buildings and outside seating area. Feel free to make as much use of the system as you wish, within the limits of the user agreement. E-mail is the preferred and main method of communicating with your tutor, staff and other students.

Students' email address are in the form of [username]@[nottingham.edu.my](mailto:username@nottingham.edu.my) and has a restricted quota. Staff emails are in the form of [firstname].[lastname]@[nottingham.edu.my](mailto:firstname.lastname@nottingham.edu.my).

Secured and encrypted email access via the web is available for both staff and students.

Scanning is done via printers in and around the Library. All printers are capable of printing in colour. The main entrance to the Library is on the ground floor at the front of the building.

IT Helpline

We can be contacted as follows:

Location: Level B, Block F2 (Central Teaching)

Direct Line: +6 (03) 8924 8199 (within campus: Ext 8199)

E-mail: ITServiceDesk@nottingham.edu.my

IT Support is staffed between 8.30am and 7:00pm on weekdays; and between 9.00am and 5.30pm on weekends. It is closed on public holidays.

Opening hours of Computer Rooms and Computer Laboratories

See: <http://www.nottingham.edu.my/thelibrary/Opening-Hours/index.aspx#Library>

The Portal and the Virtual Learning Environment

The staff and student portal enables you to discover what's happening at the University and access a range of personalised tools and information.

On the other hand, Workspace is an online collaborative portal that allows Nottingham University staff and students from *all three campuses* (i.e. UK, Malaysia and China) to share information, news and documents.

The portal is accessible at <http://my.nottingham.ac.uk> and personalised login is via University username and password. You will find the following in the portal:

- Course Materials
- Library & Reading Lists
- Transcript
- Financial Information
- Services & Support

The University supports the Virtual Learning Environment (VLE) through [Moodle](#) which can be used:

- to place lecture notes online, along with supporting tools such as a linked glossary, contents page, and search tool
 - as a gateway to topic-related external websites for research purposes
 - for self-test exercises and assessment purposes
 - to facilitate collaborative group projects, in which students communicate with each other electronically and place their own work online
 - to create a fully integrated distance-learning course
- These environments not only enable the lecturer to upload his or her own learning material, but also provide tools such as bulletin boards and online quizzes. Only students registered and enrolled on the module will be able to access your uploaded materials.

VLEs allow a student's progress to be tracked, and therefore enable you to trace which pages the student has visited and when. This facility can make it possible to pinpoint potential problems at an early stage

27.4 ACADEMIC AND DISABILITY SUPPORT

Services for students who have a disability, dyslexia and/or a long-term medical condition

At the University of Nottingham we are strongly committed to equality of opportunity for all our students. We welcome disabled and dyslexic students and aim to ensure that, as far as possible, appropriate support is offered to meet your needs.

Full information on the range of support and services available for students is available at www.nottingham.ac.uk/studentservices

Disclosure and confidentiality

We will respect the confidential nature of information you provide and act in accordance with data protection regulations. Confidential information will only be shared within the University on a need-to-know basis.

If you have a disability, dyslexia or other Specific Learning Difficulties (SpLDs), we would strongly encourage you to make early contact with us.

Knowing about your requirements in advance can help us to prepare and arrange support in time for the start of your course.

We would therefore encourage you to disclose your disability or SpLDs to us as soon as possible. Failure to do so may affect our ability to make some of the adjustments that you require.

For more information about confidentiality and disclosure, please see:

www.nottingham.ac.uk/studentservices/supportforyourstudies/disabilitysupport/studentdisclosureandconfidentialitypolicy.aspx

Eligibility

If you are disabled or have a long term medical condition, you will need to provide evidence from a medical professional (such as a GP, consultant or specialist nurse) in order to access our services and support. For more information about our medical evidence policy, please see:

www.nottingham.ac.uk/studentservices/supportforyourstudies/disabilitysupport/medicalevidencepolicy.aspx

If you are dyslexic, you will need to provide a report, in English, from an educational psychologist or a specialist teacher, dated after your 16th birthday. If you have dyspraxia or AD(H)D, or other Specific Learning Difficulties you will need to have a letter or report from a suitable, qualified professional; for example an educational or occupational psychologist or medical practitioner.

What we can offer you...

Wellbeing and Learning Support

Wellbeing and Learning Support Services is located at Room HB22, Block H Datuk Sir Colin Campbell Student Association Building opposite to the Health Centre on the first floor.

We can assist with queries regarding:

- Support in making the transition to University
- Liaison with your School or department about any impact your condition may have on the study elements of your course
- recommendations to academic staff for reasonable adjustments in teaching
- recommendations and referral for adjustments to examinations and assessment
- access to alternative formats such as Braille and large print
- residential accommodation – adapted study bedrooms
- accessible transport around and between campuses
- applying for Disabled Students' Allowances

Academic Support also provides support for students who wish to develop their strategies for academic writing and time management.

If you have any queries about the support provided at Nottingham, your first contact is Wellbeing and Learning Support Services at 03-8924 8060 or by email at disabilities@nottingham.edu.my

Disability Liaison Officers (DLO)

The School appoints Disability Liaison Officers, who provide a point of reference, advice and guidance for members of staff and students in the School about student disability issues and support. The DLOs are part of a network that meets regularly to share information and good practice. DLOs liaise with both the Academic Support and the Disability Support Teams, as necessary, in relation to individual students and general policies and procedures.

If you have any requirements or concerns talk in the first instance to your DLO - or contact your personal tutor.

School Disability Liaison Officer (DLO)

The DLO for the School of Biosciences is Mrs Salma Abd Kadir (Tel: 03-89248201, Fax: 03-89248018, email: Salma.AbdKadir@nottingham.edu.my).

27.5 CAREERS AND EMPLOYABILITY SERVICE

Careers and Employability Service

Many first year students think it is too early for them to start thinking about their future career, but in our experience it is never too early. By making the most of your time at university you can develop skills and build experiences that will be of interest to your future employers.

You could:

- join a **society** or **sports team**
- complete an **Advantage Award** module
- find a part-time job

For more information about the Advantage Award, or other ways to make the most of university life you can visit our webpage <http://www.nottingham.edu.my/Careers/index.aspx> or speak to a member of the careers team.

Whether you have one or several career ideas or none at all, it is a good idea to start researching possible career options. There are a number of ways the Careers and Employability Service can help you to do this:

- **Speak to a Careers Adviser.** You can book a one-to-one appointment to discuss your career ideas or questions at Centre for Career Development.
- **Meet employers on campus.** Throughout term time there will be a range of different employers visiting UNMC. While you're in your first year you can attend these events to find out about different industries and companies, which will help you with your career planning.
- **Attend a workshop.** There are a series of workshops held at UNMC These are free for you to attend and could help you with career ideas, making successful applications or developing job hunting strategies.
- **CV Reviews.** Whether applying for work experience, a summer internship or a part-time job you can have your own CV reviewed at Centre for Career Development.

The Careers Advisory Service is located at Room HB18 & HB18f, 1st floor, Block H Student Association Building.

For further information, consult your Personal Tutor, or the Careers Adviser at Careers@nottingham.edu.my; Tel: +603 8924 8000

27.6 COUNSELLING SERVICE

The University Counselling Service is a free confidential service available to students and staff. It is registered with the Malaysian Board of Counsellors.

Counselling offers an opportunity to talk in confidence about problems that concern you. It may also be known as psychotherapy, therapeutic counselling or psychological counselling. Some of the issues brought to the service include anxiety, depression, family concerns, bereavement, difficulty in adjusting to a new way of life, work and study related problems, family issues, relationship issues, aggressive and violent behaviour, suicidal tendencies, sexual abuse etc.

There are numerous articles that provide information on what is counselling and the kind of services that can be expected from your counsellor on this site. Please visit us at

<http://www.nottingham.edu.my/Wellbeing/Counselling/UniversityCounsellingService.aspx> for some excellent materials on various common issues. However these are only reading materials for information. The website site also provides information on the kind of services we offer.

If you are in need of help, you may want to think of discussing your issue with someone who is trained. By talking through your problems or concerns with a counsellor, you may deepen your understanding of what is happening and develop alternative ways of dealing with your situation or concern

The University Counselling Service is confidential. This means that we do not disclose verbal or written information without your permission or agreement. In rare cases, disclosure may occur without your consent if there is good reason to believe that you or others are at risk.

The Counselling Service complies with the Data Protection Act of 1998. Brief hand written notes are kept in a secure place only within the Counselling Service.

The university is concerned about the wellbeing of our students and staff. All our counsellors are very experienced and trained in their professionalism. They receive regular supervision and are constantly monitored for quality of service. There is even a mental health counsellor whose main responsibility is in providing mental health service to concerned students and staff.

Please contact us via E-mail: WellbeingandLearning@nottingham.edu.my or Tel: 03-8924 8060. We are located at the Datuk Sir Colin Campbell Student Association Building (Block H), opposite to the University Health Centre.

28 HEALTH, SAFETY & SECURITY

The research buildings are open to students from 09:30am until 18:00pm, Monday to Friday, except public holidays and University holidays. If for any reason you have to be in the building outside of these times, you must be supervised by an academic member of staff.

There are lifts available in all teaching buildings for use by disabled students. The other use of the lifts is for movement of goods, and should not be used for other purposes.

Fire

- Fire alarms in the teaching buildings are tested at a regular time. In the event of fire in the building the alarm will sound continuously. In the event of this the lecturer in charge of your class will organise evacuation of the building to the relevant assembly point. Fire exits are clearly sign-posted. Re-entry into the building after a fire alarm is given by the Fire Monitor.

Safety

- Safety in the building, especially in the Laboratories is paramount. See further reference to this matter under 'Practical Classes'
- Practical classes are continuously supervised by an academic member of staff with the support of demonstrators and occasionally technicians. You should not enter a laboratory until a member of staff arrives.
- Suitable protective clothing must be worn for laboratory classes (see 'Practical Work').
- Defined procedures must be followed for the disposal of certain types of laboratory waste, such as syringes and syringe needles, broken glass, organic solvents and microbial cultures. Instruction on the correct disposal of these and other items will be given in practical classes.
- Safety in Fieldwork. Field Course safety information and the Code of Practice for students can be found at: <http://www.nottingham.ac.uk/safety/handbook/safety-handbook.aspx>

Accidents & First Aid

- For minor injuries, first aid boxes are available in all laboratories and certain offices. In such situations it is likely you can deal with such injury yourself.
- Where an injury is more serious a qualified 'First Aider' should be called. Names of First Aiders are listed on the School's notice board.
- If a 'First Aider' is not available or if further treatment is required, you will be taken to the Health Centre.
- All accidents, whatever their severity, must be reported on an accident report form available from the member of staff taking the class at the time of the accident and will supervise completion of the form.

Food & Drinks

- On no account should food and/or drink be taken into a laboratory, lecture theatre or computing rooms.

29 APPENDICES

- A1 Qualitative Assessment Criteria - General Guidelines for Examinations
- A2 Qualitative Assessment Criteria - General Guidelines for Essays & Reports
- A3 Qualitative Assessment Criteria - General Guidelines for Posters
- A4 Qualitative Assessment Criteria - General Guidelines for Oral Presentations
- A5 Marking at Different Levels within Degree Programmes
- A6 Policy for Consistency in Negative Marking on MCQs across the School
- A7 Policy on Dyslexia
- A8 Information for students with a disability
- A9 Extenuating Circumstances Form
- A10 Making the Most of Practical Work

Appendix 1

CLASS	%	QUALITATIVE ASSESSMENT CRITERIA - GENERAL GUIDELINES FOR EXAMINATIONS
First A1 A2 A3 A4	100 90 80 73	a. Deep understanding of subject; carefully balanced arguments clearly presented; all material highly relevant to the question. b. Considerable and effective use of literature information, beyond that supplied as taught material. c. Clear evidence of critical thinking, originality and novelty d. Excellent structure and good use of illustrative diagrams etc.; evidence of originality/novelty in presentation.
Upper Second B1 B2 B3	68 65 62	a. Sound grasp of subject material; presentation of logical arguments relevant to the question. b. Reasonable evidence of wider study beyond lecture material. c. Some evidence of independent thinking and originality. d. Well organised answer; appropriate use of illustrative diagrams; clear presentation.
Lower Second C1 C2 C3	58 55 52	a. Reasonable understanding of subject material, but some flaws in the logic of arguments and factual errors; possibly some irrelevant material. b. Only limited evidence of wider study and use of literature information. c. Little evidence of independent thinking or originality. d. Fairly clear presentation; generally conforming with accepted format but with some flaws in style;
Third D1 D2 D3	48 45 42	a. Limited understanding of subject; numerous flaws in the logic of arguments; considerable factual errors and/or irrelevant material. b. Virtually no inclusion of literature information beyond lecture material. c. Virtually no evidence of independent thinking or originality. d. Little attention given to structure; very limited use of illustrative diagrams; serious flaws in presentation.
Soft Fail E	35	a. Minimal understanding of subject; serious factual errors; general lack of any logical arguments; considerable amount of irrelevant material. b. Virtually no inclusion of literature information. c. No evidence of independent thinking or originality. d. Very poorly structured answer; disorganised and untidy; missing sections; virtually no use of illustrative diagrams.
Fail F1	25	Insubstantial answer; very poor coverage of material with little information that is relevant. Virtually no evidence of understanding the question and minimal attempt at
Fail F2	10	A few lines of relevant material
Fail F3	0	No relevant material

- Only broad classes (A,B, C, D and E) have qualitative criteria attached; the division into (e.g.) C1, C2, C3 etc. is at the discretion of the examiner.
- The qualitative criteria include consideration of :
 - Student's knowledge of subject; depth, relevance and quality of answer.
 - Evidence of reading / study beyond regurgitation of standard taught material.
 - Independent or critical thinking / originality etc.
 - The quality of presentation - structure of answer, the use of sections; diagrams etc., general neatness etc.

Appendix 2

CLASS	%	QUALITATIVE ASSESSMENT CRITERIA - GENERAL GUIDELINES FOR ESSAYS & REPORTS
First A1 A2 A3 A4	10 90 80 73	a. Excellent report structure with professional presentation of figures, tables, diagrams, references etc.; evidence of originality/novelty in presentation. b. Deep understanding of subject; all arguments carefully developed and clearly expounded. c. Considerable and effective use of literature information, beyond that supplied as taught material. d. Clear evidence of critical thinking, originality and novelty.
Upper Second B1 B2 B3	68 65 62	a. Well organised report; appropriate choice of illustrative figures, tables, diagrams etc.; clearly presented throughout. b. Sound grasp of subject material; generally logical arguments. c. Reasonable evidence of wider study beyond lecture material. d. Some evidence of independent thinking and originality.
Lower Second C1 C2 C3	58 55 52	a. Generally clear report conforming with accepted format but with some errors in style and/or omissions in presentation of illustrative figures. b. Reasonable understanding of subject material, but some flaws in the logic of arguments and factual errors. c. Only limited evidence of wider study and use of literature information. d. Very little evidence of independent thinking or originality.
Third D1 D2 D3	48 45 42	a. Little attention given to report structure; limited use of illustrative figures, tables etc.; serious flaws in presentation. b. Limited understanding of subject; considerable factual errors demonstrated. c. Virtually no inclusion of literature information beyond lecture material. d. Virtually no evidence of independent thinking or originality.
Soft Fail E	35	a. Very poorly structured; disorganised; missing sections; minimal presentation of supporting data, figures etc. b. Minimal understanding of subject; serious factual errors; general lack of any logical arguments. c. Virtually no inclusion of literature information. d. No evidence of independent thinking or originality.
Fail F1	25	Very poor coverage of material with little information that is relevant. Virtually no evidence of understanding the question; minimal attempt to provide a structured answer.
Fail F2	10	A few lines of relevant material
Fail F3	0	No relevant material

- Only broad classes (A,B,C,D and E) have qualitative criteria attached; the division into (e.g.) C1, C2, C3 etc. is at the discretion of the examiner.
- The qualitative criteria include consideration of :
 - The quality of the report/essay etc. - the use of sections; diagrams; figures etc.; citation of references; general neatness etc.
 - Student's knowledge of subject; depth and quality of answer.
 - Evidence of reading / study beyond regurgitation of standard taught material.
 - Independent or critical thinking / originality etc.

Appendix 3

CLASS	%	QUALITATIVE ASSESSMENT CRITERIA - GENERAL GUIDELINES FOR POSTERS
First A1 A2 A3 A4	100 90 80 73	a. Excellent use of headings, text appropriate size, figures and diagrams clear and well-labelled, very easy to follow progression of poster theme. b. Visually very attractive and creative. c. Factually very accurate and informative with clear evidence of extensive knowledge of published literature. d. All relevant aspects of own data presented, where inclusion is appropriate.
Upper Second B1 B2 B3	68 65 62	a. Good use of headings, text of appropriate size, some loss of figure clarity or slight errors in labelling, easy to follow progression of poster theme. b. Visually quite attractive and creative. c. Factually accurate and informative with some evidence of knowledge of published literature. d. Most relevant aspects of own data presented, where inclusion is appropriate
Lower Second C1 C2 C3	58 55 52	a. Adequate use of headings, text a little too small, figures not clear and inadequately labelled, more difficult to follow progression of poster theme. b. Visually unstimulating. c. Some factual inaccuracies with only limited evidence of knowledge of published literature. d. Several aspects of own data omitted, where inclusion is appropriate.
Third D1 D2 D3	48 45 42	a. Very poor use of headings, text too small or hand-written, figures unclear and unlabelled, no obvious progression of poster theme. b. Visually unattractive and dull. c. Many factual inaccuracies with very limited evidence of knowledge of published literature. d. Most of own data omitted, where inclusion is appropriate.
Soft Fail E	35	a. No headings used and poster somewhat disorganised. b. Visually unattractive and dull. c. Inaccurate with virtually no evidence of knowledge of published literature. d. None of own data included.
Fail F1	25	a. No headings used and poster very disorganised and difficult to understand. b. Visually very unattractive and dull. c. Inaccurate with no evidence of knowledge of published literature. d. None of own data included.
Fail F2	10	A few lines of relevant material presented
Fail F3	0	No poster presented

- Only broad classes (A,B,C,D and E) have qualitative criteria attached; the division into (e.g.) C1, C2, C3 etc. is at the discretion of the examiner.
- The qualitative criteria include consideration of :
 - Structure and organisation of the poster.
 - Visual impact and attractiveness.
 - Accuracy and completeness of the content.
 - Where appropriate, inclusion of students' own experimental data

Appendix 4

CLASS	%	QUALITATIVE ASSESSMENT CRITERIA - GENERAL GUIDELINES FOR ORAL PRESENTATIONS
First A1 A2 A3 A4	100 90 80 73	a. Clearly audible, well-paced presentation delivered without obviously reading from notes the time allocated. Addressed to the audience. b. Very well-planned with a clear logical structure focused on the topic being presented. Excellent introduction and summary. c. Excellent use of visual aids which are easy to read and understand. Main points of slides clearly explained. d. Content of presentation very well-researched with relevant data where appropriate. Response to questions asked indicates thorough understanding.
Upper Second B1 B2 B3	68 65 62	a. Clearly audible, well-paced presentation delivered with some reading from notes in the time allocated. Mainly addressed to the audience. b. Quite well-planned with logical structure focused on topic being presented. Good introduction and summary. c. Good use of visual aids which are quite clear to read and understand. Good attempt to explain main points of slides. d. Content of presentation quite well-researched with relevant data where appropriate. Response to questions asked indicates good understanding.
Lower Second C1 C2 C3	58 55 52	a. Audible presentation which may be too fast or too slow. Tendency to read from notes and to address floor or ceiling. May be outside time allocated b. Some flaws in structure and not always focused on the topic being presented. Weak introduction and summary. c. Adequate use of visual aids which are not always easy to read and understand. Little attempt to explain main points of slides. d. Some omissions in literature research and little relevant data presented. Response to questions asked indicates incomplete understanding.
Third D1 D2 D3	48 45 42	a. Difficult to hear. Too fast or too slow. Read from notes and little attempt to address the audience. Outside allocated time. b. Poorly-structured, rambling presentation which strays from topic being presented. Very weak introduction or summary. c. Poor visual aids which are difficult to read and understand. Poor explanation of main points of slides. d. Little evidence of literature research and no data presented. Response to questions indicates
Soft Fail E	35	a. Mumbled, halting presentation. Much too fast or too slow. No attempt to address audience and well outside allocated time. b. No discernible structure to presentation with some relevant material. No introduction or summary. c. Very poor visual aids. No explanation of main points of slides. d. Poor literature research and no data presented. Response to questions shows serious weakness in understanding.
Fail F1	25	a. Extremely difficult to hear presentation and well outside allocated time. b. No discernible structure and very little relevant material. No introduction or summary. c. No visual aids used. d. Little evidence of research. Response to questions shows minimal understanding.
Fail F2	10	Very minimal attempt to give a presentation.
Fail F3	0	Failed to give a presentation.

- Only broad classes (A,B,C,D and E) have qualitative criteria attached; the division into (e.g.) C1, C2, C3 etc. is at the discretion of the examiner.
- The qualitative criteria include consideration of :
 - Presentation of talk; audibility, speed, use of notes, addressed to audience, time keeping.
 - Organisation of talk; logical coherent progression with introduction and summary.
 - Use of visual aids; clarity and explanation of salient points.
 - Research and response to questioning; evidence of extensive reading, presentation of own data (where relevant), evidence of wider understanding

Appendix 5

School of Biosciences Qualitative Marking Schemes Supplementary Guidelines

Marking at Different Levels Within Degree Programmes

The School's qualitative marking schemes provide general guidance for assessment of various types of work. However, in applying these schemes to individual assessments, account must be taken of the level at which students are working. The criteria outlined below provide general guidance, and not all criteria will be applicable to all forms of assessment.

Academic Levels

Level 1	Certificate level, generally qualifying year students
Level 2	Diploma level, generally taken by year 2 students
Level 3	Degree level, generally taken by year 3 students
Level 4	Masters levels, generally taken by post-graduate or year 4 undergraduate students

Major considerations

Mark Class A

Level 1:	Draws on available evidence to make sound conclusions supported from a range of sources.
Level 2:	There is evidence of further reading and careful analysis offering alternative views.
Level 3:	There is critical analysis offering alternative views. There is clear expression of own views, which are supported by appropriate literature. Draws on available evidence to make persuasive conclusions.
Level 4:	Detailed, orderly and critical work with clearly specified focus/foci exhibiting rigorous analysis, synthesis and evaluation. There must be evidence that the student has developed their own arguments.

Mark Class B

Level 1:	Content is accurate and relevant with appropriate use of supporting material.
Level 2:	There is sound analysis with good expression and argument with evidence of independent thinking supported by appropriate material.
Level 3:	There is sound critical analysis. Alternative views are expressed using supporting evidence from a variety of sources.
Level 4:	Evidence of originality and significant critical analysis. There is evidence of integration of material from a variety of sources

Mark Class C

- Level 1:** Content is largely accurate and relevant with some evidence of understanding.
- Level 2:** There is adequate analysis with limited evidence of wider study.
- Level 3:** There is reasonable understanding, with some attempt at analysis and limited use of supporting material.
- Level 4:** There is reasonable understanding and analysis supported by a range of relevant evidence.

Mark Class D

- Level 1:** Some relevant content but with evidence of only very limited understanding.
- Level 2:** Some relevant content with limited understanding but little evidence of wider study.
- Level 3:** Basic understanding with limited evidence of wider study.
- Level 4:** Basic understanding with limited evidence of understanding and some attempt at analysis.

Mark Classes E/F

All levels: Work does not demonstrate above criteria and reference should be made the qualitative criteria in deciding final mark.

Modules offered at levels A-C are considered intermediate between Levels 1-2, 2-3 and 3-4 respectively

Appendix 6

The University of Nottingham - School of Biosciences

Policy for Consistency in Negative Marking on MCQs across the School of Biosciences

Rationale

A number of modules are assessed by multiple choice questions (MCQs). Consistency in negative marking on MCQs is required across the School to ensure equity of treatment for all students undertaking MCQ examinations.

Proposals

- ☐ Adopt a consistent negative marking scheme across the School.
- ☐ That any negative marking schemes should result in a student achieving a mark of zero for guessing at all questions.

Policy 1

The following is adopted for MCQ papers where there are a number of possible correct options (e.g. A, B, C, D) and the options exclude a "don't know" answer.

Marks for incorrect answer

where n is the number of possible options (A, B, C etc) and there is only one correct answer per question

Example of Policy 1

$n=4$, thus negative marks on incorrect answers = $-1/3$

Question No.	A	B	C	D
1	1	$-(1/3)$	$-(1/3)$	$-(1/3)$
2	$-(1/3)$	1	$-(1/3)$	$-(1/3)$
3	$-(1/3)$	1	$-(1/3)$	$-(1/3)$
4	$-(1/3)$	$-(1/3)$	1	$-(1/3)$
5	$-(1/3)$	$-(1/3)$	1	$-(1/3)$
6	$-(1/3)$	$-(1/3)$	$-(1/3)$	1
7	1	$-(1/3)$	$-(1/3)$	$-(1/3)$
8	$-(1/3)$	$-(1/3)$	$-(1/3)$	1
9	$-(1/3)$	$-(1/3)$	1	$-(1/3)$
10	$-(1/3)$	$-(1/3)$	$-(1/3)$	1
11	1	$-(1/3)$	$-(1/3)$	$-(1/3)$
12	$-(1/3)$	1	$-(1/3)$	$-(1/3)$
Sum	0	0	0	0

Thus guessing all As etc provides a zero sum game: *Note that the above table is an example only and in real examinations the spread of correct answers may not be split evenly across the possible options.*

Policy 2

The following is adopted for MCQ papers where there are the following three options (True, False and Don't Know).

- ☐ Where the correct answer is selected a mark of +1 will be achieved.
- ☐ Where the incorrect answer is selected a mark of -1 will be achieved.
- ☐ Where the "don't know" option is selected a mark of 0 will be achieved and will have the same effect as the student electing to not answer the question.

Therefore marks for incorrect answer = -1

Example of Policy 2

Question No.	True	False	Don't Know
1	1	-1	0
2	-1	1	0
3	-1	1	0
4	1	-1	0
5	1	-1	0
6	-1	1	0
Sum	0	0	0

Thus guessing all "True" etc provides a zero sum game. *Note that the above table is an example only and in real examinations the spread of correct answers may not be split evenly across the possible options.*

Revised 2/4/2004

A strategy for answering Multiple Choice Questionnaires

The School of Biosciences uses MCQs alongside other forms of assessment. They are useful for finding out how much you know. They also help you to find out how well you are doing. This guidance sheet will help you to get the best results in MCQ tests and examinations.

Why MCQs?

We use MCQs for summative assessment (to measure performance and give you a mark), and for formative assessment (to encourage you to keep up with your studies and identify strengths and weaknesses). MCQs are often used for mid-course tests and end of course exams. Unlike written exams, they can assess the breadth of module content.

MCQs require factual answers and don't allow you to express ideas freely. Questions are designed to be unambiguous with a single correct response. They are marked electronically and marks are awarded *objectively*. In contrast, essay-type exam questions are marked *subjectively* according to the question setter's expectation and the marker's interpretation.

MCQs usually test your knowledge rather than your understanding (although they can do this too). Sometimes they test your ability to work things out. You may find that the answers prompt you to reveal what you know, even if you can't remember everything. Some students find MCQs straightforward while others find them problematical. Of course, the same is true for other forms of assessment which is why we use a combination of approaches.

Why negative marking?

Policy in the School of Biosciences is that MCQs are negatively marked. This means that incorrect answers attract a minus score. We use negative marking for two main reasons. Firstly, if we didn't, it would be possible to get a proportion of marks by random guessing. Secondly, we want you to try to give answers with confidence and to develop clarity and focus in the way you approach your studies.

The amount deducted for a wrong answer is calculated using the following formula:

$$\text{Deduction} = 1/(n-1), \text{ where } n \text{ is the number of possible answers}$$

Not answering, or choosing "Don't know", always scores 0. An answer paper with a total score of <0 is given a mark of zero.

Many people find negative marking discouraging, especially if they are not sure whether to guess or not. To get the best marks it helps to understand the structure of an MCQ test and to know how to maximise your chance of finding the right answers.

MCQ structure and types of question

MCQ tests come in two main flavours:

- a) True/False/Don't know (called TFD)
- b) Answer 1 from 5 (called AtoE) [Other ratios, such as 1 from 4, are occasionally used]

In either case, the questions may be independent of one another or grouped. Grouped questions sometimes relate to a preceding statement and so are really arranged in subsets.

A question in a TFD test provides a substantive statement (positive or negative) and asks you to judge its truthfulness.

Questions in an AtoE test take a wider variety of forms. Common types are

- 1) Interrogative: a question starting with *What, Why, Where* etc and offering five possible answers;
- 2) Substantive: an incomplete positive or negative statement with five possible endings;
- 3) Imperative: an instruction to follow (starting with *State, Calculate, List* etc) and offering five possible results or outcomes.

Sometimes, questions are more complex: the question itself is preceded by a numbered list of items or statements and you are asked to select the correct combination. The possibilities will often include "All of the above" or "None of the above". These types of questions require particular care and a clear, logical approach.

Although MCQ question are carefully designed, few statements in biosciences are completely true or false or free of possible exceptions. Equally, question setters are human and fallible. You are expected to interpret each question in the most obvious/straightforward sense and answer accordingly. The context for the question will have been set by the module and your answers should reflect its level and content. Questions are not designed to mislead you. Neither should you try to

outwit the setter with your answers. Written comments on answer papers are ignored and may even cause your paper to be rejected during marking.

What's the best approach?

You can maximise your score in an MCQ test if you take the right approach. Negative marking discourages reckless guesswork but you can turn it to advantage with a wise strategy. The effect of negative marking is different for TFD and AtoE, so they need different strategies. Use the following seven steps to maximise your test score:

Before the test	
1. Find out if the test is TFD or AtoE, how many questions there will be and how long it lasts. 2. Look out for a sample test, if there is one, and use it for practice.	
TFD	AtoE
Correct = +1; Incorrect = -1 Don't know/abstain = 0	Correct = +1; Incorrect = -0.25 Abstain = 0
3. Go right through the paper, answering all the questions you are confident about. Think carefully about the logic of each one. Take particular note of grouped questions. 4. Go back to the start and try questions you can answer with a little extra thought. 5. Consider each remaining question in turn. If you have <i>some idea</i> about whether the statement is true or false but are not sure, it may be worth a calculated guess, especially if you have answered most other questions with confidence. 6. If you still have no idea about a question, choose "Don't know" or abstain. 7. If there is time, reconsider the questions you were not sure about.	3. Go right through the paper, answering all the questions you are confident about. Think carefully about the logic of each one. Take particular note of grouped questions. 4. Go back to the start and try questions you can answer with a little more thought. 5. Look carefully at each remaining question. In each case, identify any answers which you know to be wrong. If you can exclude some possibilities it may be worth making a calculated guess, especially if you have answered most other questions with confidence.* 6. If you cannot exclude any possibilities, don't answer.* 7. If there is time, reconsider the questions you were not sure about.

***Note:** In AtoE tests, questions have five possible answers. Negative marking means that completely random guesses will, on average, give a zero overall score. *However*, if you can exclude some obviously wrong answers, the risk of losing marks by guessing is substantially reduced. *For*

example, if you exclude two of the five answers, you are choosing from three rather than five possibilities. The penalty for getting it wrong is still 0.25 so, on average, a guess may now give a better result than not answering. There is no simple rule about this, but the risk to your overall score by guessing is reduced the more wrong answers you identify and remove.

Things to remember

- ☐ Question setters often include answers which are *obviously* wrong. Spotting and eliminating these can significantly boost your chance of finding the correct answer.
- ☐ Avoid choosing an answer just because you recognise a phrase; it could be the answer to another question or to a question phrased differently.
- ☐ Setting MCQ questions is very difficult and staff often create banks of reusable questions which they know work well. For this reason, correct answers may not be published and past tests may not be available.
- ☐ MCQ tests are marked objectively on a linear percentage scale. This means that your score cannot be interpreted with the degree grading system used for subjectively marked tests and assignments (the assessment grids in course handbooks).

Appendix 7. Policy on dyslexia

School of Biosciences

Procedure for Students with Dyslexia Wishing to Identify their Coursework to the Marker

- 1) Academic staff will have lists of students with dyslexia so they can check the validity of identified coursework.
- 2) You may, if you wish, talk to the marker before submitting your work about any presentational (i.e. grammar, syntax, spelling, vocabulary, layout, formatting, ordering, paragraph coherence, source referencing etc.) difficulties you may be having, **but do not leave this until the last minute.**
- 3) If you feel it would be helpful, the marker may use two different coloured pens (neither red) – one for marking the factual content of your work and one for marking presentation (i.e. grammar, syntax, spelling, vocabulary, layout, formatting, ordering, paragraph coherence, source referencing etc.). **Please ask the marker if you would like this to be done.** If you are unclear about the meaning of any comments, please ask the marker to explain them.

Notes:

- ☐ You have the same opportunity as any other student to seek advice on presentation before submitting your work. There is no marking penalty associated with this action.
- ☐ You are encouraged to ask markers for further explanation when marked work is returned.
- ☐ You should always take account of the guidance provided in the School of Biosciences' *Study Skills* booklet. Follow the recommended formats for general reports, laboratory reports, essays and referencing. You must also observe any formatting requirements specified by the module convener or setter of the coursework.
- ☐ You should seek the support of the Counsellor or Disability Liaison Officer (DLO) if you require further help.

Counsellor and University
DLO:

Ms Shamini NADARAJAN
+6(03) 8924 8077
Shamini.Nadarajan@nottingham.edu.my

School DLO:

Mrs Salma ABD KADIR
+6(03) 8924 8201
Salma.AbdKadir@nottingham.edu.my

Appendix 8. Information for students with a disability

School of Biosciences

1. Student Disability Disclosure and Confidentiality Policy

The University undertakes to maintain student data in secure conditions and to process and disclose data only within the terms of the Data Protection Act 1998. Personal information concerning a disability disclosed by a student to a staff member of the School of Biosciences will be maintained in confidence and will not be released to anyone inside or outside the School without the student's authorisation. The only exceptions to this are where there is a legal obligation to do so or where exceptional issues of personal safety arise.

However, where the School believes it is in the student's best interests that contact is made with other professionals, eg: Academic Support, Accommodation Office, a doctor or psychologist, the student will be encouraged to sign a **Disability Disclosure Form**. If authorised by the student this way, the School will then be able to discuss issues relevant to the student's disability and the impact on study with other professionals in order to best serve the student's interests. Information regarding a student's circumstances can then also be shared between staff within the School in situations where it is felt this would enable us to extend support for the student.

Storage of written information

Any written information held by the School's Disability Liaison Officer (DLO) regarding a student's situation will be kept in confidential files locked within a filing cabinet in the DLO's office. In cases where the student has signed a Disability Disclosure Form (see above) other staff within the School may consult the student's file on occasions where the DLO is not available.

**If you have any concerns regarding the above policy,
please talk to the Disability Liaison Officer**

UNIVERSITY OF NOTTINGHAM EXTENUATING CIRCUMSTANCES FORM

Policy and Procedure:

<http://www.nottingham.ac.uk/academicservices/qualitymanual/assessment/extenuating-circumstances-policy-and-procedures.aspx>

Sections A and B must be completed by the student and submitted to the School within 7 days of an affected examination or before the affected coursework/dissertation/project deadline. Exceptions to this time limit are stated in paragraphs 1.3(a) and 2.9 of the Policy.

SECTION A (to be completed by the student):

Student name: _____ Course and year: _____

ID number: _____ School: _____ Name of personal tutor: _____

Please indicate why the form is being completed by ticking the appropriate box or boxes:

- ☐ Explanation for absence from an examination/assessment or non-submission of coursework
- ☐ Claim for extenuating circumstances to be taken into account when an assessment has been attempted
- ☐ Request for an extension to coursework – including a dissertation/project deadline
- ☐ Claim for extenuating circumstances that have affected study to be taken into account (only applicable if a School requests that this form is completed)

Nature of circumstances (to be completed by the student) – for full details of required evidence consult Appendix 1 of the Policy

- ☐ **Illness/Hospitalisation** (Evidence: A medical certificate or letter)
- ☐ **Family illness** (Evidence: A medical certificate or letter)
- ☐ **Bereavement** - death of close relative or friend (Evidence: Death certificate or supporting letter from an independent source)
- ☐ **Acute emotional/personal circumstances** (Evidence: Letter from the University Counselling Service or equivalent and/or medical evidence)
- ☐ **Victim of crime** (Evidence: Crime reference number plus any written evidence available from the police)
- ☐ **Domestic disruption** (Evidence: Appropriate letter)
- ☐ **Representing the University at a national event or involvement in other prestigious event** (Evidence: Letter of confirmation from the relevant organising body)
- ☐ **Jury Service/Court Attendance (UK)** (Evidence: Court or equivalent letter)
- ☐ **Other** – please give details in Section B overleaf and provide supporting documents

Do you have a current disability referral form: YES/NO

Do you have a current academic referral form: YES/NO

NB: Forms which are not fully completed and without the required documentary evidence will not be considered. Where evidence is not available by the deadline for submission of the form, the form should be submitted as required and appropriate evidence must be submitted within 14 days of the coursework deadline or affected examination. If the evidence is not in English an authenticated independent translation must also be attached.

SECTION B Further details (to be completed by the student and School/Division/Department):

1. Is supporting documentary evidence attached to this form? Yes / No

If Yes please give brief details of attachments:

The Policy and Procedure sets out full information on the type and quality of evidence required, and gives examples of circumstances not normally considered as acceptable reasons. All evidence submitted in support of an extenuating circumstances claim will be treated with full confidentiality in accordance with the Data Protection Act and will be disclosed only to appropriate members of staff. Any student wishing to restrict the sharing of such information should make his or her wishes known to the appropriate members of staff, preferably in writing.

Is supporting documentary evidence being submitted separately? Yes / No

Note: Supporting documentary evidence should be submitted within 14 days of the coursework deadline or examination.

2. The student should state below the effect that the extenuating circumstances have had on their performance, including the number of days affected and other relevant information. Please expand or attach another sheet if additional space is required. Students are advised to discuss their claim with their Personal Tutor or other member of staff of the School before completing and submitting this form if at all possible.

3. Where assessments have been affected the student should complete the blue highlighted areas of either or both of the tables below. Please expand or attach another sheet if additional space is required.

a) Request for Extension to Coursework/dissertation/project deadline

For Completion by Student (all information must be completed or the case may not be considered)					School Decision/Recommendation		
Module Code	Module Title	Assessment Period eg Autumn/ Spring	Original coursework deadline	Length of extension requested (days)*	Decision (select code from Section D1 below)	Proposed action (select code from Section D2 below)	Amended deadline for coursework submission

*This is for indicative purposes only – the School has the authority to decide the length of extension granted

(b) Absence from Examinations, non-Submission of Coursework and/or Assessments that have been completed but affected

For Completion by Student (all information must be completed or the case may not be considered)						School Decision/ Recommendation		
Module Code	Module Title	Assessment Period eg Autumn/ Spring	Assessment Affected (delete as applicable) Please enter each affected assessment on a separate line	Original date of examination/ coursework deadline	Preferred outcome* (delete as applicable) For explanation see below	Decision (select code from Section D1 below)	Proposed action (select code from Section D2 below)	Coursework Submission date (where relevant)
			Exam/Coursework		Retake/Exam Board			
			Exam/Coursework		Retake/Exam Board			
			Exam/Coursework		Retake/Exam Board			
			Exam/Coursework		Retake/Exam Board			
			Exam/Coursework		Retake/Exam Board			
			Exam/Coursework		Retake/Exam Board			

* This is for indicative purposes only – the School has the authority to decide what action will be taken. Explanation of

Retake/Exam Board:

‘Retake’ means that there would be an opportunity to take the assessment again (ie sit the exam – normally in August/September – or submit new work) as a replacement attempt for the affected attempt. The affected attempt (and therefore replacement attempt) may be either the initial (‘first sit’) attempt or a reassessment, depending on circumstances.

‘Exam Board’ means that the circumstances that are claimed would be taken into consideration at the Examination Board either in relation to progression to the next stage of the programme and/or in relation to the degree class at the end of the programme.

4. Student confirmation

I confirm that the information provided is true:

Signed (Student): _____ Date: _____

SECTION C: To be completed by the Tutor/Course manager/module convenor or nominee (please delete): I have/have not seen the student on behalf of the School

Tutor/Course manager/module convenor comments:

Name:

Date:

The Extenuating Circumstances policy requires that all Schools relevant to the student’s claim have been informed of the outcome. If this has not been done at the time of completion of this form it must be undertaken by a member of the School at an appropriate time. Please confirm whether this has been done:

YES/NO

If this has not already been done the School must ensure that it is done as soon as possible.

SECTION D: EXPLANATORY NOTES

1. BOARD OF EXAMINERS DECISION CODES

- 1 Approved
- 2 Not approved – reason given is not acceptable within the University’s Extenuating Circumstances Policy
- 3 Not approved – supporting evidence does not cover the relevant period
- 4 Not approved – evidence not supplied by an approved source
- 5 Not approved – evidence is insufficient to support the claim of seriousness of impact
- 6 Not approved – wording of evidence supplied does not support the claim
- 7 Other

2. CODES FOR USE BY SCHOOLS TO INDICATE PROPOSED ACTION TO BE TAKEN:

- A Examination(s) to be taken as a first sit in August/September or other reassessment period as appropriate for the programme
- B Coursework to be submitted as a first sit in August/September or other reassessment period as appropriate for the programme
- C Examination(s) to be taken as a reassessment in August/September or other reassessment period as appropriate for the programme
- D Coursework to be submitted as a reassessment in August/September or other reassessment period as appropriate for the programme
- E Extension to coursework/dissertation to be granted: please give new deadline above
- F Module to be retaken as for first time as registered student next Session (repeat tuition fee payable)
- G Module to be repeated as a reassessment as a registered student next Session (repeat tuition fee payable)
- H Module to be reassessed as an external candidate next Session at the student’s request
- I Refer to final Examination Board for consideration
- J Other – specify separately (Approval from Quality and Standards Committee will be required if this is outside regulation. Cases should be sent to the Head of Student Administration in the UK or equivalent at UNMC and UNNC.)

Options may be limited by the University’s Immigration Sponsorship responsibilities –

see <http://www.nottingham.ac.uk/internationalstudents/visasimmigration/visas/limitations-on-Tier-4-immigration-sponsorship.aspx>. If in doubt

Schools should consult the International Office.

NOTE: This form includes the minimum information that is required – Schools may request supplementary information on a separate form to ensure that they capture subject-specific requirements. Please check with your School Office to ensure that you are submitting the required information.

Last updated 7 February 2014



Practical and fieldwork are important parts of many bioscience courses, giving you the opportunity to put into practice all the theory you've been learning, experience the excitement of science and obtain an insight into what it's like being a

Top tips

- Enjoy practical work – it's a fantastic opportunity to put into practice all the theory you have learned;
- Read the practical or fieldwork schedule before you go...
- ... And research anything you aren't sure about
- Try to link your practical work or fieldwork activities to what you're hearing about and discussing in lectures and tutorials;
- Don't panic – you won't be the only one who doesn't understand what you're doing at the start;
- Make notes about what you did and the results you got...
- ... And keep these notes safe!
- Learn the essential techniques (such as pipetting) and how to do them well;
- Don't be afraid to ask for help, that's what the demonstrators and lecturers are there for;
- Pay attention to and follow any safety instructions;
- Don't rush, you might miss things out...
- ... Likewise don't spend all your time chatting to your lab partner so that you have to cram everything in to the last hour;
- Give yourself plenty of time to write up your lab book or report; and
- Turn up, it sounds obvious but if you



researcher. This guide is full of hints and tips from bioscience students on how you can make the most of practical work.



Why is practical work important?

Practicals and fieldwork can give you a taste of what it's like to be a scientist and researcher and hands on experience of the theory you've been learning in lectures and through your reading. They give you the opportunity to develop data analysis, communication group work and other skills you won't get from lectures. The practicals at university or college will often be very different from those you experienced at school: they may be longer, open ended (there might not be a "right" answer), involve more complex equipment and require more accurate measuring and recording.

"I quickly learnt that practical work is there to allow you to take what you learnt from a lecture or a book, and apply it. This 'hands-on' approach made quite a daunting subject a lot easier and more fun to learn." Katherine Staines, University of Edinburgh

Practicals and fieldwork can help you to build confidence in your bioscience knowledge and skills and you get the chance to meet people in your degree group and make new friends.

Before the practical

Read your practical schedule. If there are things you don't understand (the theory behind an experiment, what a piece of equipment is or does) ask around, research it, look back through your lecture notes. Think about how the experiments relate more widely to what you are learning about. This gives you time, in the practical, to think about the scientific side of the experiment, not just worry about the next step.

"What would I change if I could? Read the practical procedure before going into the lab. Although we had the practical procedures before going in the lab, at first I didn't read them so I couldn't understand what I was doing" Andria Pelava, University of Leicester

Make sure you understand what you are doing and why you are doing it. If you have

to plan any aspect of the practical in advance make sure you have done so. Don't just turn up and expect to be able to breeze through because you've done something similar before.

"Blindly following a set of steps in a protocol means that when things go wrong you're powerless – if you don't know what the components do and why, you won't know what to change." Jelena Aleksic, University of Cambridge.

In the practical

Make use of the demonstrators and teaching staff. Don't be afraid to ask questions, demonstrators are there to offer advice and help but aren't psychic. These could be questions about anything to do with the practical, from how to use a piece of equipment, how to do a calculation, or getting someone to check over your experiment if it's not working as expected. If you were unsure about something in a lecture relating to the practical it may also be an opportunity to talk to teaching staff. Make sure you understand everything before you leave.

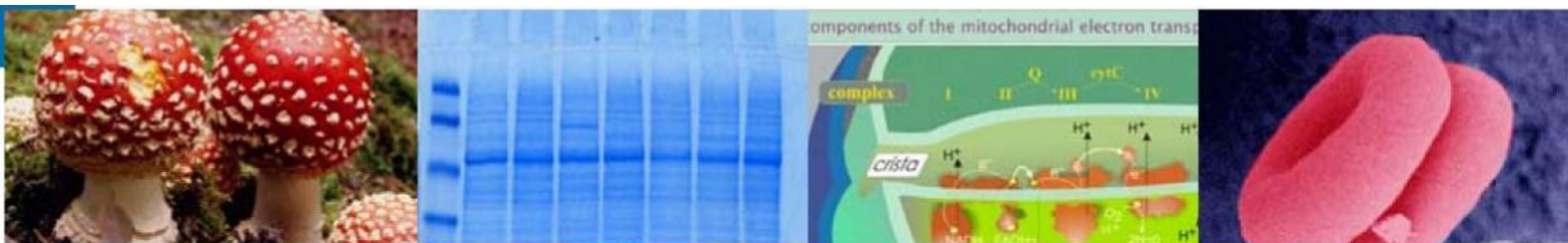
"The practical classes are staffed with demonstrators. Their job is to help you understand and learn. Use the opportunity to talk through the material

and check your results and answers with them" Kasia Kajala, University of Cambridge

Take notes!

- Keep notes of what you did (for example the steps you undertook and any problems with the method)...
- ...And the results you got (not the results you thought you should get);
- Don't write on a scrap of paper you're going to lose or the on sleeve of your lab coat;
- Use the practical schedule / handout or go and buy yourself a notebook in which you can keep everything together;
- If you don't write it down you'll be amazed how much you forget; and
- On a field trip you might need plastic folders and bags to keep your notes dry!

"If you do not take notes during a practical, trust me, you will regret it when it comes to revising. Write down anything you may need either writing up the experiment or later to remind you what you did" Catherine Jeanes, Royal Veterinary College



Doing the experiments

- ☐ Learn to use equipment properly, from accurate measuring to accurate reading of results. This helps to reduce error and minimise mistakes.
- ☐ Are you prepared? So, for example, are all your reagents ready? Do you have all the automatic pipettes/ Eppendorfs / petri dishes you are going to need prepared and ready? Do you have all the equipment you will need?
- ☐ Don't waste time. If you're waiting for results
or there's a long wait to use a piece of equipment start thinking about your write-up, tidy up your workspace, look ahead in the schedule and see if there's anything that could be prepared for a later stage of the practical.
- ☐ Be inquisitive, think about the experiment as
you're doing it, don't just follow the steps.

"Ask yourself questions as you progress with the work. For example, what do I expect the results to show? Are my results supporting my hypothesis? Are there any outliers, and if so, what factors may have contributed to these?" Ricky Trigg, University of Leicester

Focus

Focus on what you're doing. Practical sessions and fieldwork are less structured than lectures and tutorials, but that doesn't mean they are opportunities to sit and chat. You could lose track of where you're at or forget to add a vital reagent. Concentrate on what you're doing, doubly important when the chemicals you're using can be very dangerous.

If you're working as part of a pair or group don't just sit back and let everyone else do the work. Likewise if one member of your group seems determined to do everything themselves, try to divide up the tasks and activities. The benefit of practicals and fieldwork is that you get hands-on experience of the science, you can't have that as a spectator.

Health and safety

Wear a lab coat and make sure it's fastened. Use gloves and goggles as needed and make sure you wash your hands before leaving the lab. On field trips make sure you're properly dressed – that might mean waterproofs, warm clothing and

boots, or sunscreen and a hat. Don't mess about, labs can be dangerous places, so no eating, drinking, putting on makeup, chewing your nails etc. Pay attention to any health and safety warnings given at the start of a practical. If you spill or damage something, and aren't sure how to deal with it safely, ask for help.

"Lab work can be very dangerous and if you mess around, not only will you not benefit from the class, but you potentially put yourself and others at risk.... Don't worry if you have an accident, it happens to everyone, just tell one of the demonstrators." James Newton, University of Leicester

At the end of a practical session tidy up after yourself, and on a field course don't leave rubbish scattered over the study site.

Above all

Don't give up. If something doesn't work, try it again if you have time. Go through the procedure and check you have completed every step and check it over with a demonstrator. Science doesn't work perfectly every time and everybody, from

the most experienced researcher to the most inexperienced student makes mistakes, and learns from them! If it does go completely and utterly wrong see if you can have a look at your neighbours results, or if there is a demonstration, can you get results from that?

After the practical

After the session you might want to follow-up on some areas or re-read what you researched beforehand. If further recommended reading is

provided during practical or field course try to do it as soon as possible afterwards.

"Follow up things in your own time. A three-hour practical class is a short time to teach a subject in. If you are interested use your own time to find out about things from the practical. A bit of initiative will do wonders for your grades and you can pursue the things you enjoy in the class." Rudi Verspoor, University of Edinburgh

Make sure you give yourself enough time to write up your report or complete your lab book. It might take longer than you think





Resources

All the advice and tips in

this short guide came from entries to the UK Centre for Bioscience Student Award 2010, which asked students **"How would you advise new bioscience students to**

make the most out of practical work?" The

winning, runner-up and shortlisted entries are all available to view and download from our website at

www.bioscience.heacademy.ac.uk/funding/_essay/award10.aspx

Practical techniques

Virtual Analytical Lab has demonstrations of a number of lab techniques, including using a pipette and making standard curves. [http://](http://hlsweb.dmu.ac.uk/ahs/elearning/RITA/index.html)

hlsweb.dmu.ac.uk/ahs/elearning/RITA/index.html

Practical Biology has descriptions of standard techniques such as setting up serial dilutions. www.practicalbiology.org

The **Virtual Genetics Education Centre** (VGEC) has tutorials and some practical demonstrations of key techniques. Also lots of background information on genes and disease, ethics and the Human Genome project. www.le.ac.uk/ge/genie/vgec/index.html

Doing research

Engage aims to support you with the key aspects of planning and carrying out a research project, from literature reviews to step-by-step statistics and scientific writing. www.engageinresearch.ac.uk/

Statistics and data analysis

The **SUMS project** has information on a variety of topics from accuracy and precision to plotting and interpreting graphs and charts. www.step-up-to-science.com/sumsv3/

Statistics Hell, information and worked examples on a wide tests. Be aware the theme and the site won't be to everyone's www.statisticshell.com/

sheets, podcasts range of statistical examples used on taste...



UK CENTRE FOR

bioscience

All the images used in this guide are available in ImageBank.

of many basic fieldwork [techniques](http://www.geographyteachingtoday.org.uk/fieldwork/resource/fieldwork-techniques/). www.geographyteachingtoday.org.uk/fieldwork/resource/fieldwork-techniques/

Distant Access to an Ecological Field Experiment gives you an example of how to design a field experiment and what type of data need to be [collected](http://www.bioscience.heacademy.ac.uk/hosted/tireragan/). www.bioscience.heacademy.ac.uk/hosted/tireragan/

Presenting your work

Posters: Hints and tips on designing research posters from Newcastle University, <http://lorien.ncl.ac.uk/ming/dept/tips/present/posters.htm>, and the University of Leicester, www2.le.ac.uk/offices/ssds/sd/ld/resources/presentation/designing-poster

Giving presentations: Guidance on giving an effective presentation from the University of Leicester, from avoiding death by PowerPoint to effectively answering questions. www2.le.ac.uk/offices/ssds/sd/ld/resources/presentation

Written reports: Writing for science, from the University of Leicester, www2.le.ac.uk/offices/ssds/sd/ld/resources/writing/science, and Writing skills from Skills@Library at the University of Leeds have tips and guidance on writing in general and scientific writing http://skills.library.leeds.ac.uk/topic/writing_skills.php

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