

Introduction

What is in this Study Guide?

Biological Sciences stream students will not receive printed module handbooks. This study guide contains information on the content and assessment of these modules. This information is also available within each module on My Dundee. This guide also contains timetables for each of these modules but please note that sometimes times or venues have to be changed at short notice so always check My Dundee for latest information.

We hope that this Life Sciences Study Guide will:

Summarise important essential information, guidance and advice on issues of teaching, learning and student support

Help you achieve your maximum potential taking modules and/or degrees offered by the College of Life Sciences

Key Dates in Academic Year 2014-2015

Semester 1

Freshers' Week:	8-12 September 2014
Teaching Weeks 1-5 & 7-12:	15 September - 17 October 2014 27 October – 5 December 2014
Catch-up Week:	20-24 October 2014 (Level 3 only)
Semester 1 Exam Weeks 13 & 14:	8-19 December 2014 inclusive
4 weeks Christmas Vacation:	22 December 2014 – 16 January 2015

Semester 2

Teaching Weeks 15-25:	19 January – 03 April 2015
3 weeks Easter Vacation:	6 April - 29 May 2015
Semester 2 Exam Weeks 26-30:	27 April - 29 May 2015 inclusive
Graduation ceremonies:	24-26 June 2015 and 16-19 November 2015
Single resit diet for Semesters 1 & 2:	6-10 July 2015 inclusive

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SECTION 1: Management of undergraduate teaching

1.1 Key contacts

Some key members of staff in the SLSL&T are listed to the right. In addition, each module has academic staff responsible for its academic content and for running the module (the Module Leader). Module Managers have teams of academic, clerical and technical staff to help them run the various component parts of the modules for which they are responsible. The names and E-Mails of the module Managers in Section 4 which provides descriptions of individual undergraduate modules run by the College of Life Sciences.

Key Contacts in SLSL&T

Dean: Professor David Coates
Phone: 01382 385111
Email: d.coates@dundee.ac.uk

School Secretary: Mrs Brenda Murphy
Phone: 01382 386438
Email: b.m.murphy@dundee.ac.uk

Associate Dean: Dr Linda Morris
Phone: 01382 384682
Email: l.a.z.morris@dundee.ac.uk

Programme Lead: Dr David Booth
Phone: 01382 384278
Email: d.z.booth@dundee.ac.uk

1.2. Our responsibilities in the provision of teaching

The Module Manager is responsible for:

producing a module handbook to explain the teaching aims and learning objectives of the Module;

explaining the procedures by which you will be taught and examined;

providing opportunities for you to judge your progress in the Module e.g. in the form of diagnostic or formative assessments;

monitoring your attendance in classes, ask you to explain any unauthorised absence or other failure to participate in the work of the Module, and report you to the relevant Head or Year any failure to attend and/or participate, or for poor academic performance.

1.3. Seeking help, advice and information from SLSL&T

The SLSL&T Office reception is in **Room C.G.14** of the Carnelley Building and is a “one-stop-shop”, manned from 9am – 4.30pm, Monday to Friday if you wish to drop by in person.

To make an appointment to see the School Secretary or the Dean
Phone: 01382 384182 or
Email: SchoolOffice-LS@dundee.ac.uk

Contact details

Teaching Support
Phone: 01382 388178
Email: LSUGBIO@dundee.ac.uk

1.4. MY DUNDEE

My Dundee is the University of Dundee's web-based student portal, giving you access to your learning materials, your student clubs and societies and many other College and discipline specific resources.

Logging into *My Dundee*

<http://my.dundee.ac.uk/>

The URL above takes you to the login page for *My Dundee* and requires the same username and password as your login to the University computer system. Alternatively, follow links to it from the University of Dundee Homepage, via Current Students > *My Dundee*. Your use of *My Dundee* is subject to University Regulations for the Use of Computer Facilities.

The My Dundee screen: The initial screen that appears once you log on provides access to your modules, announcements, calendar, tasks and additional areas. You can customise your *My Dundee* page by adding extra features, and changing the colours and layout.

My Modules: All modules you are enrolled in are available from the Course List under My Modules tab, or from My Modules on the right hand side of the *My Dundee* screen.

My Files: This tab gives access to a personal file store on *My Dundee* which you will need if your course or module is making use of electronic portfolios.

My Webmail: This tab gives access to your University GroupWise e-mail account.

PC Requirements: You can access *My Dundee* using PCs in the University's IT suites. However, if you wish to logon from outside the University please follow the links below:

Browser and platform compatibility checks:

<http://kb.blackboard.com/pages/viewpage.action?pageId=71860304>

We also provide a link to a browser checker so that users can check their own setup:
<http://www.dundee.ac.uk/elearning/browserchecker/>

BSG275 Module : Life Sciences Undergraduate Students: Useful Information is the module where general useful information such as Degree Regulations and various important school documents such as Student Notification of Absence Form is stored for your information and use.

Further Help

If you have any problems using *My Dundee*, consult the Help tab, or try:

- ✓ *visiting* the IT Service Desk in the Tower Basement IT Suite or Main Library.
- ✓ *e-mailing* a description of your problem to elearning@dundee.ac.uk.
- ✓ *telephoning* – use the 'Service Desk' button on a phone in an IT Suite or on other phones dial extension 88000 (or 01382 388000 externally).

1.5. Help with academic matters

Help from staff or Module Managers: If you have queries regarding module content or you wish one of the teaching staff or Module Managers to provide a reference or special letter, email the staff member specifying your query or requesting an appointment.

Help from your Adviser of Studies: It is imperative that you speak to your Adviser of Studies if you are intending to make changes to your programme of study whether it is changing modules or changing degree programme. Your Adviser of Studies can also provide references for you. In addition, if you are having problems that are affecting your ability to study, it is advisable to report these to your Adviser of Studies and the Programme Lead.

You can also seek help from your relevant Programme lead who is Dr David Booth d.z.booth@dundee.ac.uk and Associate Dean who is Dr Linda Morris l.a.z.morris@dundee.ac.uk.

1.6. Help with regulatory matters from the School Secretary:

Occasionally health or personal problems have such a debilitating effect that you may have to consider withdrawing temporarily from your studies if you are continuously absent from your studies for 3 weeks or more. In this event you should discuss the matter with the School Secretary, who can advise on issues relating to Regulations and funding. Such discussions will be kept confidential, unless there are circumstances in which your interest would be best served by divulging the confidential information to other staff. Your permission would be sought in this event.

Degree examination timetables

Please note that Registry publish degree exam timetables on the University web site in November for semester 1, in March for semester 2 and in July for the resit diet. The examinations only take place on Campus and only at the particular times published in the exam timetables. There are no exceptions so beware when booking holidays or flights home within the semester dates given on the back cover of this booklet.

Degree examination results

Provisional semester 1 degree examination results will be available via eVision from the second week in January. The official results for both semester 1 and 2 will be available via eVision and also sent by post in June following the examination board meetings. The resit results will be available via eVision and by post in late August. Please note that examination results will **NOT** be conveyed via the telephone. Therefore, please **do not** telephone the SLSL&T office secretaries requesting this information,

SECTION 2: Your responsibilities as a student - learning, attendance and communication

2.1. Communication

It is your responsibility to keep yourself informed about the modules you are taking by reading and referring to the individual module handbooks available on-line via *My Dundee* and checking the following at least **once per day** for any urgent updates or rescheduling notices. You must use your University e-mail address for all communications with staff.

Check the following at least once per day for urgent updates or rescheduling notices

- ✓ **Your Dundee university Email account**
- ✓ ***My Dundee 'Announcements'***

From week 4 on a regular basis check

- ✓ **eVision**

and report any discrepancies, by email, to LSUGBIO@dundee.ac.uk address asap

2.2. Student attendance and participation

2.2.1 Attendance at compulsory classes and coursework submissions

You are encouraged to attend all lectures and scheduled classes in the timetables for all School of Life Science modules. However, for all modules, attendance at workshop and practical classes is **COMPULSORY** attendance registers are taken and it is your responsibility to ensure your attendance is noted each time.

At the end of the second week of teaching in both Semester 1 and 2 you will receive a general E-Mail reminding you of the importance of attending classes and submitting compulsory coursework. This is the only formal reminder you will receive about your attendance and submission of coursework.

Your attendance and course work submissions are strictly monitored and you should notify the School Office of any non-attendance or non-submissions using the appropriate procedure described in Section 2.2.3 below.

An accumulation of more than **one** unauthorised absence (AB) for either non-attendance and/or non-submission of coursework may result in your Duly Performed (DP) status being withdrawn for the affected module. DP status is a requirement for eligibility to take the degree examination, so withdrawal of your DP means that you are debarred from taking the degree examination for the module at both the first and second diet of exams. If your affected module is assessed by 100% coursework you will not be eligible to receive a grade for this module. You will receive a formal letter advising you of your DP withdrawal and offered an opportunity to meet with the School Secretary and Programme Lead (or Associate Dean).

2.2.2 Submitting your course work

Submission of all course work assignments (paper-based or electronic) are **COMPULSORY** and should be submitted according to the instructions given in the Assessment and Submission Deadline sections in individual module handbooks. Unless otherwise informed, **ALL** coursework should be submitted in the black boxes in the basement level of the Carnelley Building. You will have your marked paper-based assessments returned to you through the School Office Reception in Carnelley room C.G.14. Students will be notified by email that coursework is ready for collection. Extensions to a submission deadline can only be given by a Module Manager and must be recorded by the School Office

Penalties for late submission of course work

Late submission, for no good reason, may incur penalties of one grade point per day for up to a maximum of 5 working days (i.e. 1 working week) following the published deadline. For example, if your assignment was submitted 5 days late and was rated as an A2 grade, then this would be downgraded to C1 for late submission. All submissions which are more than a working week late will be marked for feedback purposes but you will be awarded a BF grade towards the overall module mark for the associated coursework. Non-submission will be graded as AB. Requests for extensions to deadlines must be made to the module manager.

2.2.3 What to do when absent from compulsory classes or examinations

If you are absent from classes, it is important that you complete a **Student Notification of Absence form**, available from the Life Sciences School Office reception in Carnelley room C.G.14, either before or within **SEVEN DAYS** following the class and/or assessment. Depending upon the circumstances, as outlined below, you may also be required to provide a medical certificate or letter explaining your absence.

Absences of up to 5 days: You can self-certify by completing a Student Notification of Absence form. For minor illnesses, an MC grade will be entered into your assessment record. If your absence is due to a cause other than illness and the reason given on the Student Notification of Absence form is considered legitimate, then a certified absence (CA grade) will be granted.

Absences of more than 5 days: If an illness results in an absence of more than 5 days, then, in addition to the Student Notification of Absence form, a medical certificate signed by a GP will also be required. If the absence is for reasons other than illness, then you must submit a letter explaining the prolonged absence. In the latter case, you will be informed if your reason for absence is deemed to be certified.

Absence requests for extra curricula activities must be made in writing to the School Office well in advance of the event **not after**. You are unlikely to be retrospectively awarded a Certified Absence.

Self Certification : Please note that in the interest of ensuring you receive the optimum learning experience and reach your full potential on your modules, only two occasions of self-certified absences/non-submission of course work can be sustained. If your attendance record shows more than two MC's (Medical related) or CA's (non-medical

related) you will be invited to meet with the School Secretary and Programme Lead, to review your position with regard to missed classes and/or course work.

2.2.4. Absence from exams (in-course tests as well as degree exams)

Email SchoolOffice-LS@dundee.ac.uk or telephone 01382 384182 as soon as possible. In addition, if you miss the examination due to illness, you must send in a medical certificate within **SEVEN DAYS** following the examination. Self-certification is not allowed for absence from examinations. If you miss an examination, through no fault of your own, for reasons other than illness, then you must submit corroborative documentation within **SEVEN DAYS** following the examination.

2.2.5. Life Sciences Scrutiny Committee procedure

If, during the course of your studies, you experience unforeseen and unavoidable circumstances that you believe have had a **significant negative impact** on your performance in coursework and/or examinations, you should submit your case (including supporting evidence where possible) in confidence for consideration by the College of Life Sciences Scrutiny Committee. The Scrutiny Committee meets in advance of the examination boards for modules to consider submissions made to the committee and makes recommendations to the Board of Examiners on the level of support that should be given in each case. In accordance with the Data Protection Act, no significant details of any submission to the Scrutiny Committee are revealed to the Board of Examiners.

How to report mitigating circumstances to the Scrutiny committee

Fill in a Scrutiny Committee Form, which you can download from the module BSG275 Life Sciences Undergraduate Students: Useful Information on *My Dundee*. or obtain from the Life Sciences School Office reception in Carnelley room C.G.14, giving brief details of how your work was affected - e.g. unable to concentrate for revision etc.

Provide documentary evidence of the problem giving some indication of the period of time involved e.g. doctor's note, a statement of support from a third party (e.g. Adviser of Studies, parents) to support your case.

The Scrutiny Committee Form will have the submission dead-line clearly identified and it is your responsibility to ensure that this form is submitted to the Life Sciences School Office on or before the dead-line provided. It may not be possible to consider late submissions.

Please note that you will not normally receive feedback on your submission from the Scrutiny Committee.

2.2.6. Consequences of absence and/or failure to submit coursework

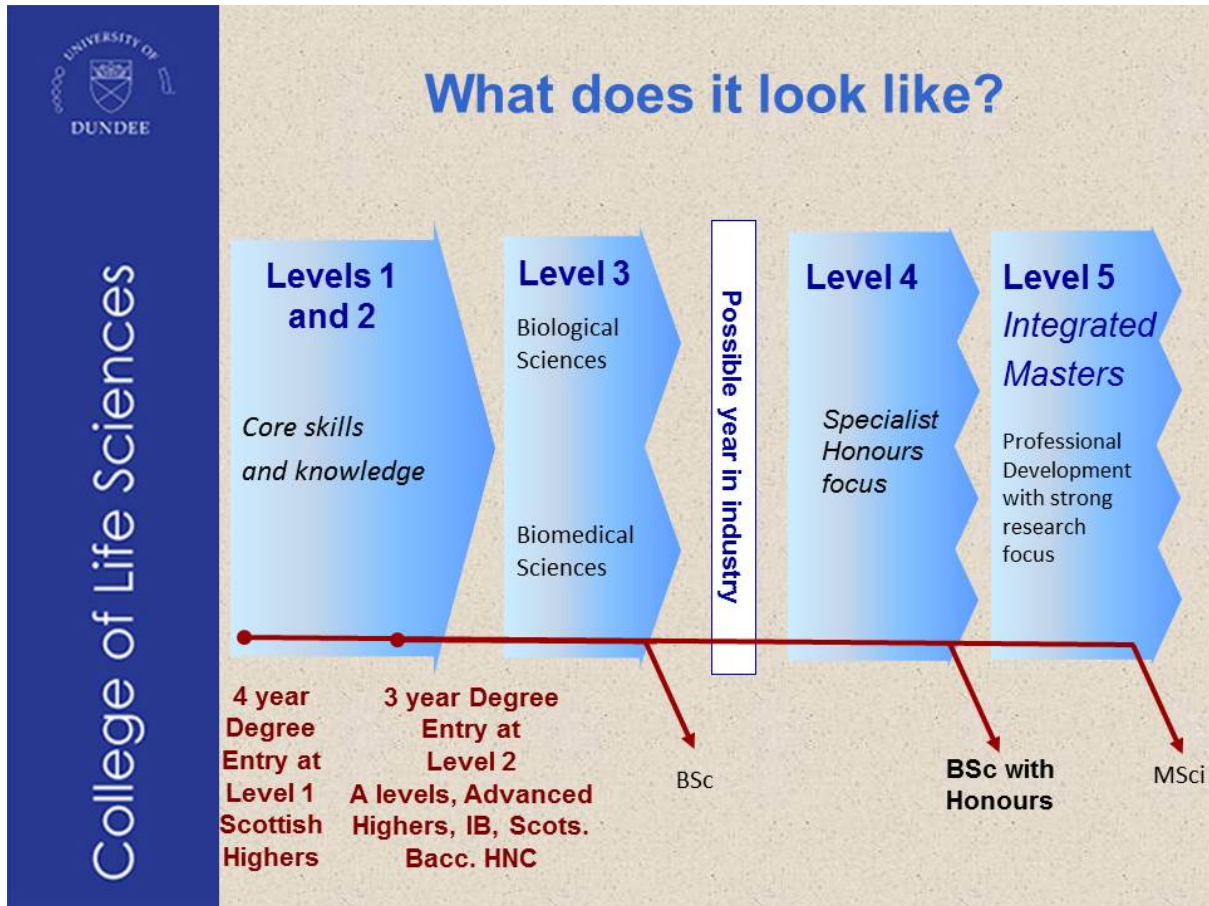
Prolonged absence - In the event of prolonged absence from classes for a period of more than 3 weeks, for any cause including legitimate reasons, you may require the consent of the Academic Senate for you to be allowed to enter the Degree examinations.

Withdrawal of DP – In the event that you have unexplained absences from compulsory scheduled classes for a module and/or have failed to submit compulsory coursework for no good reason, you may have your Duly Performed (DP) certificate removed which debars you from sitting the degree examination.

Discounted year - In the event that you are prevented from engaging with your study for legitimate reasons over a prolonged period, you may apply through the Life Sciences School Office to have the year discounted. An application for a discounted year should be submitted to the Life Science School Secretary as soon as possible and in any event not later than the end of semester 2 (before the Easter break). It is possible to retain credits already accrued from modules completed in the discounted year.

SECTION 3: Degrees in Life Sciences and Modular Structure

College of Life Sciences Degree Programme Outline



3.1.1. Life Science Level 3 Biological Sciences general information

You have now chosen whether you wish to specialise in the biological or biomedical stream. Students are automatically enrolled on modules essential for their chosen degree route but you may wish to check which modules these are by referring to the degree regulations available on the module Life Sciences Undergraduate Students: Useful Information on *My Dundee*.

3.1.2. Assessment

We use a variety of assessment types at Level 3 as listed below, you will be familiar with many of these from your previous studies:

Module type	Assessment type	Learning outcomes assessed
Theory and practical	On-line examination and tests (using QMP and EOL)	Core knowledge, numerical skills, problem solving and critical thinking.
Theory	Written exams – short answer, problems and essays	Core knowledge, numerical skills, problem solving and critical thinking.
Practical and theory	Presentations (oral and poster)	Communication skills and presentation of data.
Practical	Laboratory competence evaluation (experimental plans, risk assessments, lab books)	Practical skills, record keeping, organisational and planning skills.
Practical and theory	Scientific writing (reports, case studies, literature review, essays)	Written communication, presentation and analysis of data, critical thinking and problem solving
Theory and Practical	Data analysis	The ability to take raw data from a variety of sources, interpret and/or transform it and then present the results.

3.1.3. Feedback

You will receive feedback on all your coursework submissions which may be provided in a variety of forms e.g. hard copy feedback sheets, electronic feedback sheets, oral feedback (individual or group).

3.1.4. Core textbooks

The four semester one modules for Level 3 in Biological Sciences are the foundation for the specialist modules in semester two. To support your studies there are three recommended textbooks, many copies of which can be found in the library or can be bought either new or second-hand. In addition to these textbooks, lecturers will recommend other materials for your study.

Introduction to Genetic Analysis, Griffiths *et al*, 10th Edition, Palgrave, (earlier editions are also suitable)

Molecular Biology of the Cell, Alberts, B. *et al*. 5th edition, Garland Science, (other editions are also suitable)

Genes IX, Lewin, B, Prentice Hall (other editions are also suitable)

3.2 LEVEL 3 BIOLOGICAL SCIENCES MODULES	
SEMESTER 1 BLOCK A	SEMESTER 2 BLOCK C
BS31003: Molecular Structure & Interactions (15 Credits)	BS32004: Molecular Microbiology (15 Credits)
BS31005: Genetics (15 Credits)	BS32005: Cell & Developmental Biology (15 Credits)
BS31013: Biomembranes** (15 Credits)	BS32006: Cell Signalling (15 Credits)
BS31014: Molecular Pharmacology** (15 Credits)	BS32007: Organic Synthesis (15 Credits)
	BS32011: Practical Project A (15 Credits)
	BS32020: Human Epithelial Biology** (15 Credits)
	BS32021: Quantitative Pharmacology ** (15 Credits)
	BS32022: Human Anatomy ** (15 Credits)
SEMESTER1 BLOCK B	SEMESTER 2 BLOCK D
BS31004: Biochemistry & Cell Biology (15 Credits)	BS32003: Drug Discovery and Development (15 Credits)
BS31006: Gene Regulation & Expression (15 Credits)	BS32008: Plant Science (15 Credits)
BS31017: Sensory & Motorneuroscience** (15 Credits)	BS32009: Immunology (15 Credits)
	BS32010: Applied Bioinformatics (15 Credits)
	BS32012: Practical Project B (15 Credits)
	BS32023: Regulatory Physiology & Pharmacology** (15 Credits)
	BS32024: Neuropsychopharmacology ** (15 Credits)
	BS32025: Molecular Exercise Science** (15 Credits)

** Options from the Biomedical stream

3.2.1 Level 3 module descriptions

Below are outline descriptions of the modules and an overview of how each will be assessed. Lecture outlines will be available on My Dundee plus detailed criteria for each assessment. There are no printed handbooks for these modules.

SEMESTER 1 BLOCK A

BS31003: Molecular Structure & Interactions (15 Credits)

Module Manager: Dr Linda Morris l.a.z.morris@dundee.ac.uk

The aim of this Module is to introduce specific topics within the area of molecular structure and interactions analysis that will underpin the more specialised areas which students will encounter in Semester 2 of Level 3 and in Level 4. The module also aims to introduce students to the study of interactions that underpin biological events or early stage drug discovery and strengthen students' skills in scientific writing, critical analysis of scientific literature and in self-directed learning. Topics covered in the module are High-throughput DNA sequencing and genome annotation, Secondary structure, disorder, post-translational modification, cloning, single crystal X-ray diffraction methods, Use of bioinformatics resources and databases, Scientific paper analysis

BS31005: Genetics (15 Credits)

Module Managers: Dr David Booth d.z.booth@dundee.ac.uk

This module will study model genetic systems, genome structure and evolution, genetic polymorphism, genetic markers and mapping, population genetics, genetic networks, and reverse genetics. Topics covered in the module are the important main threads of modern genetics, how DNA becomes damaged, genetic mapping, dissecting genetic networks, model Genetic systems, Genome analysis, genetics and genomics of populations.

BS31013: Biomembranes (15 Credits)**

Module Managers: Professor John Peters j.a.peters@dundee.ac.uk

This module will provide the student with an understanding of the regulation of normal membrane function and the physiological principles underlying this, show how our current understanding of membrane function has been arrived at using examples from current literature, provide an understanding of some basic cellular and molecular physiological and pharmacological techniques and their application to investigate membrane function and enable the acquisition of skills, attitudes and techniques useful in the pursuit of modern biology.

BS31014: Molecular Pharmacology (15 Credits)**

Module Managers: Dr Sheriar Hormuzdi s.g.hormuzdi@dundee.ac.uk

This module will provide an understanding of the fundamental principles of molecular pharmacology, from drug receptor interactions to activation of intracellular signalling cascades.

After successful completion of this module, students should be able to demonstrate and explain the basic principles of receptor pharmacology, with a focus on G protein coupled receptor structure, signalling and function.

SEMESTER 1 BLOCK B

BS31004: Biochemistry & Cell Biology (15 Credits)

Module Managers: Dr David Booth d.z.booth@dundee.ac.uk

The aim of this Module is to introduce specific topics within the area of Biochemistry and Cell Biology that will underpin the more specialised areas that students will encounter in Semester 2 of Level 3 and in Level 4. The Module also aims to strengthen students' skills in scientific writing, critical analysis of scientific literature and in self-directed learning.

Topics covered in the module are how proteins function at the molecular level, protein folding, targeting, posttranslational modification and turnover, the cytoskeleton, molecular motors, cell division and how cells form tissues, cell signalling and regulation of metabolism, bioenergy and photosynthesis, systems biology approaches.

BS31006: Gene Regulation & Expression (15 Credits)

Module Managers: Professor Mike Stark m.j.r.stark@dundee.ac.uk

The aim of this module is to introduce specific topics within the area of Gene Regulation and Expression including examples of how defects at the molecular level result in disease. Topics will include transcription, translation, mRNA processing, RNAi and miRNA function and utilisation, DNA recombination and Epigenetics and genetic disease,

Students will understand the fundamental processes in molecular biology that are critical for gene expression in relation to cellular function

To be able to apply this knowledge and other information to explain the mechanism by which at least one disease state is manifest by perturbation and mutation of the apparatus to allow normal function.

BS31017: Sensory & Motorneuroscience (15 Credits)**

Module Managers: Dr Sheriar Hormuzdi s.g.hormuzdi@dundee.ac.uk

This module will provide an opportunity to acquire a good understanding of the physiology and anatomy of systems that govern the sensory perception and motor function.

After successful completion of this module, students should be able to demonstrate knowledge and understanding of how nervous systems, in particular the motor and sensory systems, are built and function, using examples from all stages of neural organization (at the molecular, cellular, circuits and systems levels).

SEMESTER 2 BLOCK C

BS32004: Molecular Microbiology (15 Credits)

Module Managers: Dr Nicola Stanley-Wall N.R.Stanleywall@dundee.ac.uk

The aim of this Module is to introduce students to specialist topics within the areas of bacterial and fungal microbiology. This module will underpin more specialised areas of molecular microbiology that the students will encounter in their Level 4 laboratory projects and in Semester 2 of Level 4. The module aims to strengthen students' skills in problem solving, critical analysis of scientific literature, and in self-directed learning.

Students will be able to explain broad aspects of microbiology and relate this to protein structure / function and molecular genetics. Students will understand the principles that underlie the processes of how bacteria sense, respond and move to environmental stimuli, nutrient sensing and uptake by bacteria, how, why and when antibiotics are produced by bacteria, the bacterial cytoskeleton, molecular motors, and the process of cell division in prokaryotes, multicellular and community behaviour in bacteria and fungi, geomicrobiology and its applications, fungal cell wall biosynthesis and the molecular basis of pathogenicity and virulence in bacteria.

BS32005: Cell & Developmental Biology (15 Credits)

Module Managers: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module is to introduce students to the specialist area of study of developmental biology building on their core curriculum in levels 1&2 and Semester 1 of Level 3. To give the student an understanding of the stages and processes involved in the development of organisms. Topics include: Morphogenesis, patterning embryos, patterning tissues, morphogenetic movements, development and diseases stem cells.

Students will be able to explain broad aspects of the development of vertebrates and invertebrates and what happens when these processes go wrong and will develop their literature review skills, and group working and ways of presenting information in an informative manner.

BS32006: Cell Signalling (15 Credits)

Module Managers: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module will cover methods of cell-to-cell communication, signal transduction pathways, key proteins in signal transduction and downstream effects.

BS32007: Organic Synthesis (15 Credits)

Module Managers: Dr Art Crossman a.t.crossman@dundee.ac.uk

This module should give an in-depth understanding of the main organic reactions used in modern synthetic laboratories with particular respect to the design of molecules for drug discovery.

Students will gain a knowledge and understanding of the main organic reactions and mechanisms. They will be able to predict products of reactions and represent the mechanisms of the reactions using curly arrow notation and be able to design a synthetic strategy to produce a desired product(

BS32011: Practical Project A (15 Credits)

Module Managers: Professor David Coates d.coates@dundee.ac.uk

This module will build on practical experience in Years 1 & 2 and provide training for the final year research project. This module will offer a range of projects related to specialist modules in semester 2.

Project Titles include:-

- Applied Bioinformatics
- Microbial Cell Biology
- Molecular Biochemistry

BS32020: Human Epithelial Biology (15 Credits)**

Module Managers: Dr Steve Land s.c.land@dundee.ac.uk

This module will provide a good understanding of the physiology and pharmacology of the human respiratory, renal and gastrointestinal systems.

After successful completion of this module, students should be able to demonstrate knowledge and understanding of the functions and related pharmacology of respiratory, renal and gastrointestinal systems in human physiology.

BS32021: Quantitative Pharmacology ** (15 Credits)

Module Managers: Professor John Peters j.a.peters@dundee.ac.uk

This module will provide students with a good understanding of the quantitative aspects of pharmacology including mathematical descriptions of drug/receptor interactions and the handling of drugs by the body (pharmacokinetics).

After successful completion of this module, students should be able to demonstrate receptor theory, including basic mathematical descriptions of receptor occupancy and the nature and diversity of allosteric interactions within receptor complexes, the area of pharmacokinetics and drug disposition within the body and the drug development process.

BS32022: Human Anatomy ** (15 Credits)

Module Managers: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module will provide the anatomical background to the human systems studied in the Biomedical Stream at level 3.

After study of this module, students will be able to; recognise the gross anatomy and histology of the systems covered, describe the pathology of these systems and explain the development of systems during the first trimester.

SEMESTER 2 BLOCK D

BS32003: Drug Discovery and Development (15 Credits)

Module Managers: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module will give an understanding of the process involved in identifying drug targets and developing drugs against that target including assay development. The main topics discussed include target identification, assay development, pharmacokinetics, and structure activity relationships (SAR).

Students will gain a knowledge and understanding of the drug development process from target identification to assay development and pre-clinical trials.

BS32008: Plant Science (15 Credits)

Module Managers: Dr David Booth d.z.booth@dundee.ac.uk

This module will study the structures and diversities of plant genomes, plant sexual strategies, plant responses to the environment, hormonal signalling, developmental programming, seasonal change, symbionts and pathogens. Learning Outcomes include plant genomes, plants and the environment, plants and human welfare, plant development, plants and their biotic environment and plant improvement.

BS32009: Immunology (15 Credits)

Module Managers: Dr Jenny Woof j.m.woof@dundee.ac.uk

This module will provide students with a broad understanding of key topics in immunology. This module will underpin more specialised areas of immunology that the students will encounter in their Level 4 laboratory projects and in Semester 2 of Level 4. The module aims to strengthen students' skills in problem solving, critical analysis of scientific literature and will be able to explain central concepts in the field of immunology and relate this to protection against infectious disease.

Students will be able to explain central concepts in the field of immunology and relate this to protection against infectious disease, innate immune mechanisms that sense and eliminate pathogens, processing and presentation of antigenic material to drive immune responses, antibody-mediated protection, development and activation of B and T lymphocytes, lymphocyte function, mucosal immune defences, immunological memory and vaccination, immunity to viruses, immunodeficiency diseases, autoimmune diseases and immune hyperreactivity.

BS32010: Applied Bioinformatics (15 Credits)

Module Managers: Dr David Martin d.m.a.martin@dundee.ac.uk

This module build on the basic bioinformatics introduced in Years 1 and 2, and give students a broad understanding of modern bioinformatics using Python programming and bioinformatics toolkits to study algorithms used for phylogeny, data mining, interpretation of high throughput data including next generation sequencing analysis and statistical evaluation of the relevance of results.

BS32012: Practical Project B (15 Credits)

Module Managers: Professor David Coates d.coates@dundee.ac.uk

This module will build on practical experience in Years 1 & 2 and provide training for the final year research project. This module will offer a range of projects related to specialist modules in semester 2.

Project Titles include:-

- Plant Science
- Synthetic Biology
- Drug Discovery and fragment synthesis

BS32023: Regulatory Physiology & Pharmacology (15 Credits)**

Module Managers: Professor Hari Hundal h.s.hundal@dundee.ac.uk

This module will provide a good understanding of the physiological and pharmacological regulation of body systems for maintaining homeostasis. After successful completion of this module, students should be able to demonstrate knowledge and understanding of how key body systems are regulated by physiological and pharmacological agents in the maintenance of processes such as blood sugar, calcium balance, obesity/appetite/satiety and reproduction.

BS32024: Neuropsychopharmacology ** (15 Credits)

Module Managers: Professor John Peters j.a.peters@dundee.ac.uk

This module will provide students with a good knowledge and understanding of chemical transmission within the central nervous system and how this may be modulated to achieve therapeutic benefit in several disorders of nervous system function.

After successful completion of this module, students should be able to demonstrate chemical transmission within the central nervous system, pathological mechanisms involved in disorders of the central nervous system and the modulation of chemical transmission to achieve therapeutic benefit.

BS32025: Molecular Exercise Science (15 Credits)**

Module Managers: Dr Steve Land s.c.land@dundee.ac.uk

This module will provide a good understanding of the adaptation to exercise on a cellular and molecular level, particularly in skeletal muscle.

After successful completion of this module, students should be able to demonstrate knowledge and understanding of skeletal muscle adaptation to exercise and the signal transduction and gene regulation events that cause these adaptations.

** *Options from the Biomedical stream*

3.3 Life Science modules at Level 4

LEVEL 4 BIOLOGICAL SCIENCES MODULES	
SEMESTER 1	
BS41004: Biological Science Honours Project (40 Credits)	
BS41005: Research Skills (20 Credits)	
SEMESTER 2 BLOCK C	SEMESTER 2 BLOCK D
BS42003: Advanced Bioinformatics (15 Credits)	BS42008: Advanced Cell & Developmental Biology (15 Credits)
BS42004: Advanced Modern Drug Discovery (15 Credits)	BS42009: Advanced Molecular Microbiology (15 Credits)
BS42005: Advanced Plant Sciences (15 Credits)	BS42010: Advanced Gene Regulation & Expression (15 Credits)
BS42006: Advanced Immunology (15 Credits)	BS42011: Advanced Organic Chemistry & Chemical Biology (15 Credits)
BS42007: Cancer Biology (15 Credits)	BS32012: Parasitology (15 Credits)
BS42025: Analgesic & Anaesthetic pharmacology** (15 Credits)	BS42013: Advanced Cell Signalling (15 Credits)
BS32004: Molecular Microbiology^{ΔΔ} (15 Credits)	BS42014: Nutrient Sensing, Signalling & Acquisition** (15 Credits)
BS32005: Cell & Developmental Biology^{ΔΔ} (15 Credits)	BS42021: Heart & Circulation** (15 Credits)
BS32006: Cell Signalling^{ΔΔ} (15 Credits)	BS32003: Drug Discovery and Development^{ΔΔ} (15 Credits)
BS32007: Organic Synthesis^{ΔΔ} (15 Credits)	BS32008: Plant Science^{ΔΔ} (15 Credits)
BS32020: Human Epithelial Biology ∞ (15 Credits)	BS32009: Immunology^{ΔΔ} (15 Credits)
BS32021: Quantitative Pharmacology ∞ (15 Credits)	BS32010: Applied Bioinformatics^{ΔΔ} (15 Credits)
BS32022: Human Anatomy ∞ (15 Credits)	BS32023: Regulatory Physiology and Pharmacology∞ (15 Credits)
	BS32024: Neuropsychopharmacology∞ (15 Credits)

** Options from the Biomedical stream ^{ΔΔ}Options from the L3 Biological stream

∞ Options from the L3 Biomedical stream

3.3.1 Level 4 module descriptions

Semester 1 Block A Modules

BS41004: Biological Science Honours Project (40 Credits)

Module Manager: Dr David Booth d.z.booth@dundee.ac.uk

Building on their project experience at Level 3, students will expand their research experience by participating in a semester long research project based around one chosen area of the current world-class research in Life Sciences. Depending on the type of project chosen, students will learn advanced practical techniques and/or enhance their data interpretation skills, analysis of current literature, scientific writing and communication skills. All students will enhance their skills in planning and time management. Four main types of projects are available to students: A) Individual lab based research- students will carry out research into a current topic allied to and within a research group in School of Research, James Hutton Institute or Medical Research Institute at Ninewells. B) Group lab based research- in groups of no more than four, students will plan and carry out investigations into a current area of research. They will work cooperatively to carry out investigations and produce data but write individual reports.

C) Science communication- in conjunction with Dundee Science Centre, students will prepare materials to communicate current research topics and techniques to a public audience

BS 41005 Research Skills (20 Credits)

Module Manager: Dr David Booth d.z.booth@dundee.ac.uk

The aim of this module is to use the vibrant research environment of the College of Life Sciences , James Hutton Institute and Medical Research Institute at Ninewells, to expand the students experience of current research and give them the opportunity to be part of the wider research culture. Students will gain knowledge of the current leading areas of research in Life Sciences. They will enhance their scientific communication skills through writing and gain experience of grant proposal writing. Following attendance at seminars, students will be able to produce abstracts

summarising the subject of at least three of these seminars. Following tutorials on grant proposal writing, students will prepare a grant proposal in relation to their own research project which will then be presented to and assessed by a panel of current researchers. Students will collectively organise a research symposium to take place in the final week of the semester.

SEMESTER 1 BLOCK C

BS42003: Advanced Bioinformatics* (15 Credits)

Module Manager: Dr David Martin d.m.a.martin@dundee.ac.uk

The aim of this module is to provide specialist knowledge and understanding of frontier topics in bioinformatics. Students will gain an understanding of key technologies and applications in modern biological research and familiarity with state of the art processes

This module will consist of four blocks delivered by specialists in specific fields. Indicative content are Genome Assembly, Proteomics, Structural analysis and systems modelling though these may change with research areas and staff availability.

BS42004: Advanced Modern Drug Discovery (15 Credits)

Module Manager: Dr Kevin Read k.read@dundee.ac.uk

The aim of this module is to build upon the students' understanding from Level 3 of the process involved in identifying drug targets and developing drugs against those targets. This will include key aspects of drug development beyond lead optimisation. Students will gain an understanding of the drug discovery and development process, from target identification through to assay development and lead optimisation.

Topics covered in this module include detailed receptor pharmacology, special considerations for specific drug discovery programmes, including Central Nervous System targets and biologicals, detailed understanding of what makes a good drug target and a potential drug molecule, an introduction to nonclinical development with specific emphasis on safety pharmacology, safety assessment and more detailed Drug Metabolism Pharmacokinetics study requirements and finishing with a case study assessment.

BS42005: Advanced Plant Sciences (15 Credits)

Module Manager: Dr Piers Hemsley p.a.hemsley@dundee.ac.uk

The aim of this module is to provide students with an in depth view of cutting edge plant science research. Students will gain an understanding Plant environment interactions (covering pathogen, symbiote and abiotic interactions), Genomics and crop improvement and development and gene

Expression. Topics covered in this module include Plant-environment interactions (perception and response to bacterial oomycete; fungal and insect pathogens; plantsymbiote interactions; plant detection of and responses to abiotic stress). Use of genome sequencing and association genetics for plant breeding and biotechnology. Regulation of gene expression and plant development in changing environments.

BS42006: Advanced Immunology (15 Credits)

Module Manager: Dr Jenny Woof j.m.woof@dundee.ac.uk

The aim of this Module is to provide students with an in- depth understanding of a

variety of major topics in immunology and to strengthen students' skills in problem solving, critical analysis of scientific literature, and in self-directed learning. Topics covered in this module include Innate immune mechanisms, Toll-like receptors and signaling, Inhibitory/activatory receptors, Immunoglobulin biology, Antibody engineering for therapy and research, Antigen processing and presentation, Lymphocyte activation and signaling, T cell mediated immunity, Immune hyperreactivity and immunodeficiency and Immunity to viruses.

BS42007: Cancer Biology (15 Credits)

Module Manager: Dr Gillian Smith g.smith@dundee.ac.uk

The aim of this Module is to provide students with a broad understanding of key topics in cancer biology. This module will build on more specialised areas of biochemistry, molecular cell biology and genetics that the students will have encountered in their Level 4 laboratory projects and will complement additional courses in Semester 2 of Level 4. Topics covered in this module are Introduction to cancer pathology, Introduction to the molecular biology of cancer, Cancer treatment – chemotherapy and radiotherapy: mechanisms of action, Oncogenes, Tumour suppressor genes, Growth factors, Cell signalling pathways, Cancer viruses, Environmental carcinogenesis, DNA damage and repair, Invasion and metastasis and Cancer stem cells.

BS42025: Analgesic & Anaesthetic pharmacology (15 Credits)**

Module Manager: Professor Jerry Lambert j.j.lambert@dundee.ac.uk

This module aims to promote an understanding of the mode of action of analgesic and general anaesthetic drugs at a modern and advanced level, specifically (i) to relate the complex state of general anaesthesia to the modulation of the function of specific transmitter-gated ion channels within the CNS, (ii) to describe the actions of endogenous neurosteroids as anxiolytic and sedative molecules, (iii) to illustrate the complexity of modern anaesthesia and the management of the patient in the peri-operative period by multiple drugs and (iv) to describe emerging targets for new analgesic agents.

BS32004 Molecular Microbiology^{ΔΔ} (15 Credits)

Module Manager: Dr Nicola Stanley-Wall N.R.Stanleywall@dundee.ac.uk

The aim of this Module is to introduce students to specialist topics within the areas of bacterial and fungal microbiology. This module will underpin more specialised areas of molecular microbiology that the students will encounter in their Level 4 laboratory projects and in Semester 2 of Level 4. The module aims to strengthen students' skills in problem solving, critical analysis of scientific literature, and in self-directed learning.

Students will be able to explain broad aspects of microbiology and relate this to protein structure / function and molecular genetics. Students will understand the principles that underlie the processes of how bacteria sense, respond and move to environmental stimuli, nutrient sensing and uptake by bacteria, how, why and when antibiotics are produced by bacteria, the bacterial cytoskeleton, molecular motors, and the process of cell division in prokaryotes, multicellular and community behaviour in bacteria and fungi, geomicrobiology and its applications, fungal cell wall biosynthesis and the molecular basis of pathogenicity and virulence in bacteria.

BS32005 Cell & Developmental Biology^{ΔΔ} (15 Credits)

Module Manager: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module is to introduce students to the specialist area of study of developmental biology building on their core curriculum in levels 1&2 and Semester 1 of Level 3. To give the student an understanding of the stages and processes involved in the development of organisms. Topics include: Morphogenesis, patterning embryos, patterning tissues, morphogenetic movements, development and diseases stem cells.

Students will be able to explain broad aspects of the development of vertebrates and invertebrates and what happens when these processes go wrong and will develop their literature review skills, and group working and ways of presenting information in an informative manner.

BS32006 Cell Signalling^{ΔΔ} (15 Credits)

Module Manager: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module will cover methods of cell-to-cell communication, signal transduction pathways, key proteins in signal transduction and downstream effects.

BS32007 Organic Synthesis^{ΔΔ} (15 Credits)

Module Manager: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module should give an in-depth understanding of the main organic reactions used in modern synthetic laboratories with particular respect to the design of molecules for drug discovery. Students will gain a knowledge and understanding of the main organic reactions and mechanisms. They will be able to predict products of reactions and represent the mechanisms of the reactions using curly arrow notation and be able to design a synthetic strategy to produce a desired product(s).

BS32020: Human Epithelial Biology [∞] (15 Credits)

Module Manager: Dr Steve Land s.c.land@dundee.ac.uk

This module will provide a good understanding of the physiology and pharmacology of the human respiratory, renal and gastrointestinal systems. After successful completion of this module, students should be able to demonstrate knowledge and understanding of the functions and related pharmacology of respiratory, renal and gastrointestinal systems in human physiology.

BS32021 Quantitative Pharmacology [∞] (15 Credits)

Module Managers: Professor John Peters j.a.peters@dundee.ac.uk

This module will provide students with a good understanding of the quantitative aspects of pharmacology including mathematical descriptions of drug/receptor interactions and the handling of drugs by the body (pharmacokinetics).

After successful completion of this module, students should be able to demonstrate receptor theory, including basic mathematical descriptions of receptor occupancy and the nature and diversity of allosteric interactions within receptor complexes, the area of pharmacokinetics and drug disposition within the body and the drug development process.

BS32022 Human Anatomy ∞ (15 Credits)

Module Managers: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module will provide the anatomical background to the human systems studied in the Biomedical Stream at level 3.

After study of this module, students will be able to; recognise the gross anatomy and histology of the systems covered, describe the pathology of these systems and explain the development of systems during the first trimester.

SEMESTER 2 BLOCK D

BS42008: Advanced Cell & Developmental Biology (15 credits)

Module Manager: Dr Kim Dale j.k.dale@dundee.ac.uk

The aim of this module is to provide a specialised insight into advanced cell and developmental biology. This module will extend and build on the students' knowledge gained in Level 1 -3 and will provide plenty of opportunities for the students to engage in, as well as critically appraise and evaluate, cutting edge research in highly topical cell and developmental biology subjects in normal and disease physiologies. Students will gain understanding and be able to explain detailed aspects of the molecular regulation and cell biology of either vertebrate development, invertebrate development or Stem cell biology subjects in both normal and disease states.

Specialist topics offered are Stem Cells in Development, Advanced Invertebrate Development and Systems.

BS42009: Advanced Molecular Microbiology (15 Credits)

Module Managers: Dr Robert Ryan r.p.ryan@dundee.ac.uk

The aim of this module is to provide a specialised insight into advanced molecular microbiology. This module will extend and build on the students' knowledge gained in Level 1 -3 and will provide plenty of opportunities for the students to engage in cutting edge research in highly topical microbiology subjects. On completion of the module students should be able to explain the molecular principles that underpin (some of) the following processes in microorganisms ie. Bacterial quorum sensing, Cyclic nucleotides second messengers in bacteria, Antibiotic resistance in bacteria, Bacterial protein secretion and export systems, Bacterial ion channels, Bacterial transport metabolons

Topics covered in the module are Bacterial quorum sensing, Cyclic nucleotides second messengers in bacteria, Antibiotic resistance in bacteria, Bacterial protein secretion and export systems, Bacterial ion channels and Bacterial transport metabolons.

BS42010: Advanced Gene Regulation & Expression (15 Credits)

Module Manager: Professor Mike Stark m.j.r.stark@dundee.ac.uk

The aim of this module is to provide an opportunity for students to carry out an indepth study of specific topics within the area of Gene Regulation and Expression and of the advanced technologies and experimental design that underpin them. Students will gain an understanding of selected topics in cell and molecular biology at the level of contemporary, cutting-edge research in these areas. The selected areas will reflect the expertise and research interests of the Centre for Gene Regulation & Expression in Dundee but will be placed within the wider context of current research. Specialist topics offered as part of this module may vary from year to year but will typically include five topics drawn from the following areas: transcriptional regulation, chromosome biology, nuclear structure and gene expression, chromatin structure and gene regulation, DNA damage response, control of DNA replication, advanced topics in cell division, advanced proteomics, quantitative and high-resolution microscopy.

BS42011: Advanced Organic Chemistry & Chemical Biology (15 Credits)

Module Manager: Dr Andrew Woodland a.woodland@dundee.ac.uk

The aim of this module is to build on levels 1-3 chemistry teaching and to provide students with the core skills required to design synthetic routes towards novel compounds. During this module students will work through examples of how organic chemistry can be used to answer biological questions using chemical biology methods.

On completion of this module students will gain an understanding of several advanced methods for organic synthesis and organic synthesis design theory. This module will look at designing novel synthetic pathways to drug molecules using combinations of known synthetic procedures including Parallel synthesis, Fragment synthesis, Convergent synthesis, Functional group transformations, Protection groups and Radical chemistry.

BS42012: Parasitology (15 Credits)

Module Manager: Professor David Horn d.horn@dundee.ac.uk

The aim of this module is to introduce students to molecular, cellular and biochemical studies on selected parasitic protozoa. Students will gain an understanding of selected parasites, common approaches to their study and development of chemotherapies against them.

Topics covered in this module will include Genetic approaches, Immune evasion, Drug-delivery, Drug targets and Drug mode-of-action.

BS42013: Advanced Cell Signalling (15 Credits)

Module Manager: Professor Grahame Hardie d.g.hardie@dundee.ac.uk

The aim of this module builds on the Level 3 module Cell Signalling (BS32006) and will take students close to the forefront in selected areas of cell signalling research currently being pursued in the School of Research within the College of Life Sciences.

On completion of this module, students should have the ability to acquire, organize, present and discuss information about Cell Signalling obtained from the primary scientific literature and other sources.

Topics covered in this module are protein kinase families; recognition of substrates by protein kinases; regulation of protein kinases; protein phosphatase families; targeting of phosphatases via regulatory subunits; sensing of energy by AMPK; organization of protein phosphorylation networks by 14:3:3 proteins; signalling in the innate immune system; analysis of T cell signalling by phosphoproteomics.

BS42014: Nutrient Sensing, Signalling & Acquisition (15 Credits)**

Module Manager: Professor Hari Hundal h.s.hundal@dundee.ac.uk

The aim of this Module is to introduce specific topics within the area of Biochemistry and Cell Biology that will underpin the more specialised areas that students will encounter in Semester 2 of Level 3 and in Level 4. The Module also aims to strengthen students' skills in scientific writing, critical analysis of scientific literature and in self-directed learning.

Topics covered in the module are how proteins function at the molecular level, protein folding, targeting, posttranslational modification and turnover, the cytoskeleton, molecular motors, cell division and how cells form tissues, cell signalling and regulation of metabolism, bioenergy and photosynthesis, systems biology approaches.

BS42021: Heart & Circulation (15 Credits)**

Module Manager: Dr Faisal Khan f.khan@dundee.ac.uk

This module will provide the student with an understanding of the physiological control mechanisms in the heart and peripheral circulation as an integrated system, as well as the cellular pathways (i.e. risk factor pathways) involved in the development of cardiovascular disease and how this can lead to a variety of acute and chronic clinical complications. This will also give students a knowledge base in state-of-the-art techniques for research in cardiovascular medicine. Students are expected to develop an in depth, integrated and critical understanding of the physiology and pathophysiology of cardiac muscle and the cellular basis of new and evolving therapies, central and hormonal control of cardiac output in health and disease, physiology and pathophysiology of microvascular and macrovascular function and regulation and advantages and disadvantages of current biomarker techniques for evaluation of endothelial function and arterial stiffness.

BS32003: Drug Discovery & Development^{ΔΔ} [15 Credits]

Module Manager: Dr Linda Morris l.a.z.morris@dundee.ac.uk

This module will give an understanding of the process involved in identifying drug targets and developing drugs against that target including assay development. The main topics discussed include target identification, assay development, pharmacokinetics, and structure activity relationships (SAR).

Students will gain a knowledge and understanding of the drug development process from target identification to assay development and pre-clinical trials.

BS32008: Plant Science^{AA} [15 Credits]

Module Managers: Dr David Booth d.z.booth@dundee.ac.uk

This module will study the structures and diversities of plant genomes, plant sexual strategies, plant responses to the environment, hormonal signalling, developmental programming, seasonal change, symbionts and pathogens. Learning Outcomes include plant genomes, plants and the environment, plants and human welfare, plant development, plants and their biotic environment and plant improvement.

BS32009: Immunology^{AA} [15 Credits]

Module Manager: Dr Jenny Woof j.m.woof@dundee.ac.uk

This module will provide students with a broad understanding of key topics in immunology. This module will underpin more specialised areas of immunology that the students will encounter in their Level 4 laboratory projects and in Semester 2 of Level 4. The module aims to strengthen students' skills in problem solving, critical analysis of scientific literature and will be able to explain central concepts in the field of immunology and relate this to protection against infectious disease.

Students will be able to explain central concepts in the field of immunology and relate this to protection against infectious disease, innate immune mechanisms that sense and eliminate pathogens, processing and presentation of antigenic material to drive immune responses, antibody-mediated protection, development and activation of B and T lymphocytes, lymphocyte function, mucosal immune defences, immunological memory and vaccination, immunity to viruses, immunodeficiency diseases, autoimmune diseases and immune hyperreactivity.

BS32010: Applied Bioinformatics^{AA} [15 Credits]

Module Managers: Dr David Martin d.m.a.martin@dundee.ac.uk

This module build on the basic bioinformatics introduced in Years 1 and 2, and give students a broad understanding of modern bioinformatics using Python programming and bioinformatics toolkits to study algorithms used for phylogeny, data mining, interpretation of high throughput data including next generation sequencing analysis and statistical evaluation of the relevance of results.

BS32023: Regulatory Physiology & Pharmacology[∞] [15 Credits]

Module Managers: Professor H. Hundal h.s.hundal@dundee.ac.uk

This module will provide a good understanding of the physiological and pharmacological regulation of body systems for maintaining homeostasis. After successful completion of this module, students should be able to demonstrate knowledge and understanding of how key body systems are regulated by physiological and pharmacological agents in the maintenance of processes such as blood sugar, calcium balance, obesity/appetite/satiety and reproduction.

BS32024: Neuropsychopharmacology∞ [15 Credits]

Module Managers: Professor J. A. Peters j.a.peters@dundee.ac.uk

This module will provide students with a good knowledge and understanding of chemical transmission within the central nervous system and how this may be modulated to achieve therapeutic benefit in several disorders of nervous system function.

After successful completion of this module, students should be able to demonstrate chemical transmission within the central nervous system, pathological mechanisms involved in disorders of the central nervous system and the modulation of chemical transmission to achieve therapeutic benefit

SECTION 4: Important regulatory information

4.1. The SCQF Credit Scheme and the Student Workload

The SCQF scheme envisages 1200 hours of work by you each year, based upon 40 hours a week for 30 weeks, successful completion of which will give you a total of 120 credits. The module credit rating indicates the total number of hours of effort that is required of you in that module e.g. a 20 credit module requires 200 hours of effort. Such a module could contain 30 hours of lectures, 25 hours of laboratory practicals and 5 hours of tutorials. The balance of the 200 hours (in this example 140 hours) must be spent by you on independent learning including background reading, getting your notes into shape, completing coursework, revision etc. If you obtain an overall pass grade for that module, you will be awarded 20 credits. If you fail, no credits will be awarded.

If you are a full-time student, you are expected to pass modules totalling 120 credits each year. Failure to do so may impact on the type of degree you achieve and the number of years it will take you to gain a degree.

4.2. Advisers of Studies – Changing modules

You must seek the permission of your Adviser of Studies if you wish to make any changes to your programme of study. Your Adviser is the only person authorised to agree changes. This could include substituting one Module for another, simply dropping one or more Modules (provided that you understand and accept the consequences of a reduced workload) or changing your degree in view.

You must make any changes to your module selection within 1 week of the start of Semester 1 or Semester 2.

4.4. Prizes and Life Sciences award ceremony

Prizes – There are various prizes and bursaries awarded by the School and College each year.

Awards Ceremony – Students who have won module, School and College prizes are presented with certificates and prizes at a special Awards Ceremony which normally takes place in November of the new session.

4.5. Assessment and examinations

4.5.1. MC (medical certificate) and/or CA (certified absence) grades

Adjustments for MC/CA grades depend upon the element of assessment as follows:

For assessed certified absence or non-submission of coursework, suitable adjustment will be made to the overall module grade to take these into account. Where this adjustment results in an upgrading, your overall module grade will be duly amended following the examiners meeting for the module.

For certified absence from Degree examinations, your overall module grade will be amended to reflect 0 MC such that your coursework marks will go forward to the next diet of examinations for which your result will be recorded as a first attempt and not a resit on your official transcript.

4.5.2. Grade conversion tables used in summative assessment

Dependent upon the complexity and stakes of the assessment task a standard or stringent grade conversion is applied:

Examinations Standard % to Grade - conversion				Coursework Stringent % to Grade conversion			
%	GRADE	%	GRADE	%	GRADE	%	GRADE
0	AB	50	C3	0	AB	55	C3
1	BF	51	C3	1	BF	56	C3
2	BF	52	C3	2	BF	57	C3
3	BF	53	C2	3	BF	58	C3
4	BF	54	C2	4	BF	59	C3
5	BF	55	C2	5	BF	60	C2
6	BF	56	C1	6	BF	61	C2
7	BF	57	C1	7	BF	62	C2
8	BF	58	C1	8	BF	63	C2
9	BF	59	C1	9	BF	64	C2
10	BF	60	B3	10	BF	65	C1
11	BF	61	B3	11	BF	66	C1
12	BF	62	B3	12	BF	67	C1
13	BF	63	B2	13	BF	68	C1
14	BF	64	B2	14	BF	69	C1
15	BF	65	B2	15	BF	70	B3
16	BF	66	B1	16	BF	71	B3
17	BF	67	B1	17	BF	72	B3
18	BF	68	B1	18	BF	73	B3
19	BF	69	B1	19	BF	74	B3
20	CF	70	A3	20	CF	75	B2
21	CF	71	A3	21	CF	76	B2
22	CF	72	A3	22	CF	77	B2
23	CF	73	A3	23	CF	78	B2
24	CF	74	A3	24	CF	79	B2
25	CF	75	A3	25	CF	80	B1
26	CF	76	A3	26	CF	81	B1
27	CF	77	A3	27	CF	82	B1
28	CF	78	A3	28	CF	83	B1
29	CF	79	A3	29	CF	84	B1
30	CF	80	A2	30	CF	85	A3
31	CF	81	A2	31	CF	86	A3
32	CF	82	A2	32	CF	87	A3
33	CF	83	A2	33	CF	88	A3
34	CF	84	A2	34	CF	89	A3
35	MF	85	A2	35	MF	90	A2
36	MF	86	A2	36	MF	91	A2
37	MF	87	A2	37	MF	92	A2
38	MF	88	A2	38	MF	93	A2
39	MF	89	A2	39	MF	94	A2
40	D3	90	A1	40	D3	95	A1
41	D3	91	A1	41	D3	96	A1
42	D3	92	A1	42	D3	97	A1
43	D2	93	A1	43	D3	98	A1
44	D2	94	A1	44	D3	99	A1
45	D2	95	A1	45	D2	100	A1
46	D1	96	A1	46	D2		
47	D1	97	A1	47	D2		
48	D1	98	A1	48	D2		
49	D1	99	A1	49	D2		
		100	A1	50	D1		
				51	D1		
				52	D1		
				53	D1		
				54	D1		

4.5.3 Use of English translation dictionaries in examinations

If you are a student, whose first language is not English and you wish to use an English translation dictionary during exams, then you must apply, through the SLSL&T School Office, for a letter giving you permission to use a paper-based dictionary. You must take the letter to ALL examinations for checking, along with the dictionary, by the senior invigilator. **Electronic dictionaries are not allowed in exams.**

4.5.4. What can happen if you fail to pass modules?

Under normal circumstances you will have the opportunity to remediate a failed status within a module after a first sitting of the assessment, either by a second attempt at the examination in the resit diet, or submission of appropriate work or task if your module is continually assessed. Failure to pass a resit examination or reassessment task always has consequences for your Degree Programme. In the extreme event that you did not gain the prescribed minimum number of credits (80 credits per academic session for fulltime students), you would be subject to the Termination of Studies Regulations, in which case you will be informed of the procedures to be followed by letter, following publication of the results of the resit examinations.

Requirements for avoiding termination of studies: if you are a full time student, you are required to acquire a minimum 80 credits for each academic year of attendance. If, by the end of the re-sit diet of exams, you have failed to acquire 80 credits for the year, you would be invited to submit an appeal, and your case would be considered by the college termination of studies committee, which would decide, following inspection of your academic record and consideration of any mitigating circumstances you present, whether to allow you to return or whether to require you to discontinue your studies. If the college requires you to discontinue your studies, you have the right to appeal to the equivalent senate committee.

Failing even one module, although not necessarily leading to Termination of Studies, has an impact on your future because you have to gain enough credits for a Degree. A failed Module may have to be taken again the following year, possibly on an “extended DP”, which allows you to sit the examinations without attending classes. However, for students entering in 2006 and later, EDPs will be permitted to enable progression from Levels 1 to 2 ONLY. If you fail a level 2 or 3 module, you may be required to repeat the module in attendance.

If you fail more than 2 modules, you may have to remain at the same level of study for another year and not be allowed to progress to the next level until you have gained the necessary credits

If you are carrying a failed module(s) at the start of the new academic session you will have an appointment made to meet with the School Secretary and Head of Year to discuss the terms of your progression.

To summarise, failure to pass modules inevitably leads either to additional pressure at the next Level of Study, delayed progression to the next Level of Study (with consequent lengthening of the time and expense to achieve your degree) or even exclusion from your chosen programme of study. You should note also that fail grades appear on University Academic Transcripts which may be requested to support job applications.

It should be noted that in fourth year, students must pass their modules on first sitting except in cases of extenuating circumstances.

4.6. Plagiarism and academic dishonesty

The University of Dundee's Code of Practice on Plagiarism and Academic Dishonesty may be viewed in full at <http://www.dundee.ac.uk/academic/plagiarism.htm>.

Plagiarism and other forms of academic dishonesty are particularly unpleasant forms of intellectual deceit. There are greater temptations for students to engage in these activities in assessed coursework, whether that be essays, computer programmes, laboratory or practical work or undergraduate and postgraduate dissertations and theses. Therefore prevention is particularly important and, where possible, plagiarism detection software is used. Also, teaching staff are experienced in identifying possible cases of academic dishonesty. The University regards academic dishonesty as an extremely serious offence of equal import to cheating in written examinations, and it is dealt with accordingly.

4.6.1. Examples of academic dishonesty include

Collusion - the representation of a piece of unauthorised group work as the work of a single candidate.

Commissioning - submitting an assignment done by another person as the student's own work.

Duplication - the inclusion in coursework of material identical or substantially similar to material which has already been submitted for any other assessment within the University.

False declaration - making a false declaration in order to receive special consideration by an Examination Board or to obtain extensions to deadlines or exemption from work.

Falsification of data - presentation of data in laboratory reports, projects, etc based on work purported to have been carried out by the student, which have been invented, altered or copied by the student.

Plagiarism - the unacknowledged use of another's work as if it were one's own. Examples are:

- inclusion of more than a single phrase from another's work without the use of quotation marks and acknowledgement of source;
- summarising another's work by changing a few words or altering the order of presentation without acknowledgement;
- copying another's work;
- use of another's ideas without acknowledgement or the presentation of work as if it were one's own which is substantially the ideas of another.

Further explanation and guidance on how to avoid infringing them can be found on the Advance@Dundee at: <http://www.dundee.ac.uk/advancedundee/D/d018p.htm>.

Particularly useful information on how (and how not) to paraphrase the work of others can be viewed at: http://www.wisc.edu/writing/Handbook/QPA_paraphrase.html.

4.7. Academic standards and student representation

The University has a responsibility to assure the standards of its academic awards and the quality of teaching. All students are given an opportunity to give us their individual views of the modules by completing electronic module evaluation questionnaires via *my Dundee*. Any constructive comments you make about modules are fed back and used in course monitoring and contribute to the future development of modules. This is a feature of the University Academic Standards procedure and is fully supported by DUSA. The results of the questionnaires will also be available to you via the *My Dundee* module.

- **School President and student representation** – For information on student representation within the university, check out the URL below:
http://www.dusa.co.uk/content/431393/about_us/
- The elected School President for Life Sciences for session 2014-15 will be confirmed in September 2014. It is the job of the School President to work with class representatives and other students to ensure issues and comments are picked up and brought to the attention of the appropriate committees such as the School Board of Life Sciences Learning & Teaching or the DUSA Student Representative Council meetings.
- **Class representatives and staff student liaison** – At the beginning of the academic year we will ask for volunteers to act as class reps.

Help with University regulations, teaching and learning

SLSL&T office staff can help with

- Absence forms and medical certificates
- Authorise official documents (Please note that a minimum of 48 HOURS notice is required in order to produce or authorise official documents so, please allow for this delay when you request such services)

The School Secretary can help with

- Applications for a discounted year, temporary withdrawal from studies or deferred year of study
- Applying to graduate with Cert HE, Dip HE, Ordinary and Honours degrees
- Permanent withdrawal from study and/or transfers to other Colleges and institutions

Teaching support by SLSL&T office staff includes

- Processing submitted coursework and the return of marked paper-based coursework
- Recording your attendance and academic grades for module assessments
- Helping make appointments with teaching staff
- For all other enquiries please contact the module manager or Head of Year.

4.8. Campus services and facilities

<http://www.dundee.ac.uk/main/currstud.htm>

There are a variety of Services and Facilities which provide information, support and advice for students including how to use the services and facilities on offer as well as providing self-help and/or information leaflets. These are listed in the 'Student Handbook' and also available on the web. Some of the most useful web links are listed below.

- **Student Services:** <http://www.dundee.ac.uk/studentservices/>
- **Student Advisory Service:** <http://www.dundee.ac.uk/adviceguidance/ourservice.html>
- **Counselling Service:** <http://www.dundee.ac.uk/counselling/students.htm>
- **Health Service:** <http://www.dundee.ac.uk/healthservice>
- **The Registry:** <http://www.somis.dundee.ac.uk/registry/>. The Registry is responsible for matriculation, examinations and graduation and maintains the Student Record. In addition, the Registry produces student ID cards and provides certification of student status for Council Tax purposes, funding bodies, etc.
- **University Chaplaincy:** <http://www.dundee.ac.uk/chaplaincy/>. Fiona Douglas (University Chaplain) has appointed David Robertson (Honorary Chaplain to the University and to Dundee FC) to work alongside her within the College of Life Sciences. Fiona and David have indicated that they wish to be considered as an additional resource for the College. They will not be coming around knocking on doors, but they will be available for any student or member of staff (of any faith or none) who wishes to discuss any ethical or moral dilemmas, the relationship between science and religion or indeed any issue that you may wish to raise with them. Please feel free to contact Fiona f.c.douglas@dundee.ac.uk or David darobertson@blueyonder.co.uk.
- **Life Sciences Disability Officers:** <http://www.dundee.ac.uk/disabilityservices>

Disability Services is based in the Ewing Annexe on the main University campus and offers a range of confidential services dedicated to the support and empowerment of disabled students. All disabled students are advised to register with Disability Services as soon as possible in order for recommendations to be made for day to day teaching and examination support.

Disability Officers for Life Sciences

Mrs Brenda Murphy:

Phone: 01382 386438

Email: b.m.murphy@dundee.ac.uk

Mrs Monica Lacey:

Phone: 01382 384790

Email: m.lacey@dundee.ac.uk

- **Life Sciences Careers Officer Information** <http://www.dundee.ac.uk/careers>

The Careers Service is located at 166 Nethergate and you can just drop in to use the Information room which contains a wealth of literature regarding employment, further study, gap year, volunteering, funding and much more.

What is Offered? Help includes:

Work experience: Vacation/Semester Employment; Career Choice, Finding a Job; Application Form; CV;s; Graduate Selection Tests; Further Study; Changing Course; Funding; Interview Preparation; Mock Interviews

Careers Officers for Life Sciences Lynsay Pickering:

Email: l.pickering@dundee.ac.uk

Opening Times

Monday – Friday
(0900 to 1700 hrs)

- **Library Services** <http://www.dundee.ac.uk/library/>

Provides a wide variety of services including how to find books, journals and electronic resources and life sciences students can request the help of the specific Librarians

Library Liaison Staff for Life Sciences

Margaret Adamson:

Phone: 01382 384317

Email: m.adamson@dundee.ac.uk

Rona Carstairs

Phone: 01382 385552

Email: r.m.carstairs@dundee.ac.uk

Helen Olafsson

Phone: 01382 385182

Email: h.a.olafsson@dundee.ac.uk

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Level 3 Module timetables – remember that any changes to these will be announced on My Dundee so please check your modules daily.

Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31003	1	Mon	15/09/2014	BS31003-SEM1-A LecA1 gr01 - Methodologies	14:00	15:00	Dalhousie 3F01 LT3	Martin, David
BS31003	1	Mon	15/09/2014	BS31003-SEM1-A LecD1 gr01 - Methodologies	15:00	16:00	Dalhousie 3F01 LT3	Martin, David
BS31003	1	Wed	17/09/2014	BS31003-SEM1-A TutA1 gr01 - Methodologies	09:00	11:00	Dalhousie 2F11 (G)	Martin, David
BS31003	1	Thu	18/09/2014	BS31003-SEM1-A LecC1 gr01 - Methodologies	09:00	10:00	Old Med Schl 2.03	Martin, David
BS31003	2	Mon	22/09/2014	BS31003-SEM1-A LecA6 gr01 - Molecular Structure & Interactions (15)	14:00	15:00	Old Med Schl 2.03	Hunter, William
BS31003	2	Mon	22/09/2014	BS31003-SEM1-A LecD2 gr01 - Methodologies	15:00	16:00	Dalhousie 3F01 LT3	Trost, Matthais
BS31003	2	Tue	23/09/2014	BS31003-SEM1-A LecA2 gr01 - Methodologies	09:00	10:00	Dalhousie 3F01 LT3	Hunter, William
BS31003	2	Wed	24/09/2014	BS31003-SEM1-A LecB1 gr01 - Methodologies	09:00	10:00	Harris LT	Hunter, William
BS31003	2	Thu	25/09/2014	BS31003-SEM1-A LecC2 gr01 - Methodologies	09:00	10:00	Old Med Schl 2.03	Hunter, William
BS31003	2	Fri	26/09/2014	BS31003-SEM1-A LecE1 gr01 - Methodologies	12:00	13:00	Old Med Schl 2.03	Hunter, William
BS31003	3	Mon	29/09/2014	BS31003-SEM1-A LecF gr01 - Methodologies	14:00	15:00	Old Med Schl 2.03	Trost, Matthais
BS31003	3	Mon	29/09/2014	BS31003-SEM1-A LecD3 gr01 - Methodologies	15:00	16:00	Dalhousie 3F01 LT3	Trost, Matthais
BS31003	3	Tue	30/09/2014	BS31003-SEM1-A LecA3 gr01 - Methodologies	09:00	10:00	Dalhousie 3F01 LT3	Hunter, William
BS31003	3	Wed	01/10/2014	BS31003-SEM1-A LecB2 gr01 - Methodologies	09:00	10:00	Harris LT	Hunter, William
BS31003	3	Thu	02/10/2014	BS31003-SEM1-A LecC3 gr01 - Methodologies	09:00	10:00	Old Med Schl 2.03	Hunter, William
BS31003	3	Fri	03/10/2014	BS31003-SEM1-A LecE2 gr01 - Methodologies	12:00	13:00	Old Med Schl 2.03	Hunter, William
BS31003	4	Tue	07/10/2014	BS31003-SEM1-A LecA4 gr01 - Methodologies	09:00	10:00	Dalhousie 3F01 LT3	Morris, Linda
BS31003	4	Tue	07/10/2014	BS31003-SEM1-A TutA3 gr01 - Methodologies	11:00	13:00	Matthew 5018	Morris, Linda
BS31003	4	Wed	08/10/2014	BS31003-SEM1-A PracA gr01 - Methodologies	09:00	12:00	Old Med Schl 3.03 (Life Sci)	Morris, Linda
BS31003	4	Thu	09/10/2014	BS31003-SEM1-A LecC4 gr01 - Methodologies	09:00	10:00	Old Med Schl 2.03	Morris, Linda
BS31003	5	Mon	13/10/2014	BS31003-SEM1-A LecD4 gr01 - Methodologies	15:00	16:00	Dalhousie 3F01 LT3	Norman, David
BS31003	5	Tue	14/10/2014	BS31003-SEM1-A LecA5 gr01 - Methodologies	09:00	10:00	Dalhousie 3F01 LT3	Norman, David
BS31003	5	Tue	14/10/2014	BS31003-SEM1-A WorkshopA4 gr01 - Methodologies (15)	11:00	13:00	Old Med Schl 2.03	Morris, Linda, Crossman, Arthur
BS31003	5	Wed	15/10/2014	BS31003-SEM1-A LecB3 gr01 - Methodologies	09:00	10:00	Harris LT	Hunter, William
BS31003	5	Thu	16/10/2014	BS31003-SEM1-A LecC5 gr01 - Methodologies	09:00	10:00	Old Med Schl 2.03	Hunter, William

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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31004	7	Tue	28/10/2014	BS31004-SEM1-A LecA1 gr01 - Biochemistry & Cell Biology	09:00	10:00	Dalhousie 2G11 LT4	Norman, David
BS31004	7	Tue	28/10/2014	BS31004-SEM1-A LecB1 gr01 - Biochemistry & Cell Biology	10:00	11:00	Matthew 5013	z A N Other (LSLT 1)
BS31004	7	Wed	29/10/2014	BS31004-SEM1-A LecC1 gr01 - Biochemistry & Cell Biology	09:00	10:00	Matthew 5018	van Aalten, Daan
BS31004	7	Thu	30/10/2014	BS31004-SEM1-A WorkshopA gr01 - Biochemistry & Cell Biology	14:00	18:00	Tower Basement ITS C	Booth, David
BS31004	7	Fri	31/10/2014	BS31004-SEM1-A LecE gr01 - Biochemistry & Cell Biology	09:00	10:00	Tower T9	z A N Other (LSLT 2)
BS31004	8	Tue	04/11/2014	BS31004-SEM1-A LecA2 gr01 - Biochemistry & Cell Biology	09:00	10:00	Dalhousie 2G11 LT4	Sargent, Frank
BS31004	8	Tue	04/11/2014	BS31004-SEM1-A LecB2 gr01 - Biochemistry & Cell Biology	10:00	11:00	Matthew 5013	Sargent, Frank
BS31004	8	Wed	05/11/2014	BS31004-SEM1-A LecC2 gr01 - Biochemistry & Cell Biology	09:00	11:00	Matthew 5018	Sargent, Frank
BS31004	8	Thu	06/11/2014	BS31004-SEM1-A WrkshpB gr01 - Biochemistry & Cell Biology	16:00	18:00	Dalhousie 2G11 LT4	Booth, David
BS31004	8	Fri	07/11/2014	BS31004-SEM1-A LecF gr01 - Biochemistry & Cell Biology	09:00	10:00	Tower T9	Sargent, Frank
BS31004	9	Mon	10/11/2014	BS31004-SEM1-A WrkshpC gr02 - Biochemistry & Cell Biology	13:00	14:00	Dalhousie 2S14 (G)	Booth, David
BS31004	9	Mon	10/11/2014	BS31004-SEM1-A WrkshpC gr01 - Biochemistry & Cell Biology	16:00	17:00	Dalhousie 2S16 (G)	Booth, David
BS31004	9	Tue	11/11/2014	BS31004-SEM1-A LecA3 gr01 - Biochemistry & Cell Biology	09:00	10:00	Med Scis Inst LT	Prescott, Alan
BS31004	9	Tue	11/11/2014	BS31004-SEM1-A LecB3 gr01 - Biochemistry & Cell Biology	10:00	11:00	Matthew 5013	Prescott, Alan
BS31004	9	Wed	12/11/2014	BS31004-SEM1-A LecC3 gr01 - Biochemistry & Cell Biology	09:00	10:00	Matthew 5018	Prescott, Alan
BS31004	9	Fri	14/11/2014	BS31004-SEM1-A LecG gr01 - Biochemistry & Cell Biology	09:00	10:00	Tower T9	Prescott, Alan
BS31004	10	Tue	18/11/2014	BS31004-SEM1-A LecA4 gr01 - Biochemistry & Cell Biology	09:00	10:00	Med Scis Inst LT	West, Michele
BS31004	10	Tue	18/11/2014	BS31004-SEM1-A LecB4 gr01 - Biochemistry & Cell Biology	10:00	11:00	Matthew 5013	Dale, Kim
BS31004	10	Wed	19/11/2014	BS31004-SEM1-A LecC4 gr01 - Biochemistry & Cell Biology	09:00	10:00	Matthew 5018	Nathke, Inke
BS31004	10	Thu	20/11/2014	BS31004-SEM1-A WrkshpD gr01 - Biochemistry & Cell Biology	09:00	11:00	Tower Basement ITS C	Booth, David
BS31004	10	Thu	20/11/2014	BS31004-SEM1-A WrkshpD gr02 - Biochemistry & Cell Biology	16:00	18:00	Tower Basement ITS C	Booth, David
BS31004	10	Fri	21/11/2014	BS31004-SEM1-A LecH gr01 - Biochemistry & Cell Biology	09:00	10:00	Tower T9	West, Michele
BS31004	11	Tue	25/11/2014	BS31004-SEM1-A LecA5 gr01 - Biochemistry & Cell Biology	09:00	10:00	Med Scis Inst LT	Weijer, Cornelis
BS31004	11	Tue	25/11/2014	BS31004-SEM1-A LecB5 gr01 - Biochemistry & Cell Biology	10:00	11:00	Matthew 5013	Sargent, Frank
BS31004	11	Wed	26/11/2014	BS31004-SEM1-A LecC5 gr01 - Biochemistry & Cell Biology	09:00	10:00	Matthew 5018	Sargent, Frank
BS31004	11	Fri	28/11/2014	BS31004-SEM1-A LecD gr01 - Biochemistry & Cell Biology	09:00	10:00	Tower T9	Weijer, Cornelis
BS31004	11	Fri	28/11/2014	BS31004-SEM1-A PresentationA gr01 - Biochemistry & Cell Biology	13:00	15:00	Dalhousie 3G02 LT1	Prescott, Alan, Booth, David

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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31005	1	Mon	15/09/2014	BS31005-SEM1-A LecA1 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Flavell, Andrew
BS31005	1	Tue	16/09/2014	BS31005-SEM1-A LecB1 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Flavell, Andrew
BS31005	1	Thu	18/09/2014	BS31005-SEM1-A LecC1 gr01 - Genetics	13:00	14:00	Harris LT	Russell, Joanne
BS31005	1	Thu	18/09/2014	BS31005-SEM1-A LecD1 gr01 - Genetics	15:00	16:00	Harris LT	Ramsay, Luke
BS31005	1	Fri	19/09/2014	BS31005-SEM1-A LecE1 gr01 - Genetics	09:00	10:00	Carnelley Large LT	Ramsay, Luke
BS31005	2	Mon	22/09/2014	BS31005-SEM1-A LecA2 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Flavell, Andrew
BS31005	2	Tue	23/09/2014	BS31005-SEM1-A LecB2 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Flavell, Andrew
BS31005	2	Thu	25/09/2014	BS31005-SEM1-A TutB gr01 - Genetics	14:00	15:00	Harris LT	Ramsay, Luke
BS31005	2	Thu	25/09/2014	BS31005-SEM1-A LecD2 gr01 - Genetics	15:00	16:00	Harris LT	Flavell, Andrew
BS31005	2	Fri	26/09/2014	BS31005-SEM1-A LecG1 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Gartner, Anton
BS31005	3	Tue	30/09/2014	BS31005-SEM1-A LecB3 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Gartner, Anton
BS31005	3	Thu	02/10/2014	BS31005-SEM1-A LecC2 gr01 - Genetics	13:00	14:00	Harris LT	Gartner, Anton
BS31005	3	Thu	02/10/2014	BS31005-SEM1-A LecD3 gr01 - Genetics	15:00	16:00	Harris LT	Muller, Hans-Arno
BS31005	3	Fri	03/10/2014	BS31005-SEM1-A LecE2 gr01 - Genetics	09:00	10:00	Carnelley Large LT	Arthur, Simon
BS31005	3	Fri	03/10/2014	BS31005-SEM1-A LecG2 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Gartner, Anton
BS31005	4	Mon	06/10/2014	BS31005-SEM1-A LecA3 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Sargent, Frank
BS31005	4	Tue	07/10/2014	BS31005-SEM1-A LecB4 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Simpson, Gordon
BS31005	4	Tue	07/10/2014	BS31005-SEM1-A TutA gr01 - Genetics	14:00	16:00	Old Med Schl 2.02B (Life Sci)	Simpson, Gordon, Gartner, Anton
BS31005	4	Thu	09/10/2014	BS31005-SEM1-A LecC3 gr01 - Genetics	13:00	14:00	Harris LT	Flavell, Andrew
BS31005	4	Thu	09/10/2014	BS31005-SEM1-A LecD4 gr01 - Genetics	15:00	16:00	Harris LT	Flavell, Andrew
BS31005	4	Fri	10/10/2014	BS31005-SEM1-A LecE3 gr01 - Genetics	09:00	10:00	Carnelley Large LT	Booth, David
BS31005	4	Fri	10/10/2014	BS31005-SEM1-A LecF gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Booth, David
BS31005	5	Mon	13/10/2014	BS31005-SEM1-A TutC gr01 - Genetics	09:00	10:00	Dalhousie 2G12 (G)	Booth, David
BS31005	5	Mon	13/10/2014	BS31005-SEM1-A LecA4 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Booth, David
BS31005	5	Tue	14/10/2014	BS31005-SEM1-A LecB5 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Booth, David
BS31005	5	Thu	16/10/2014	BS31005-SEM1-A TutD gr01 - Genetics	16:00	18:00	Old Med Schl 2.03	Flavell, Andrew
BS31005	5	Fri	17/10/2014	BS31005-SEM1-A LecC4 gr01 - Genetics	13:00	14:00	Old Med Schl 2.03	Booth, David

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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31006	7	Mon	27/10/2014	BS31006-SEM1-A LecA1 gr01 - Gene Regulation & Expression	09:00	10:00	Old Med Schl 2.03	Stark, Michael
BS31006	7	Mon	27/10/2014	BS31006-SEM1-A TutA gr03 - Gene Regulation & Expression	14:00	15:00	Dalhousie 2S01 (B)	
BS31006	7	Tue	28/10/2014	BS31006-SEM1-A TutA gr01 - Gene Regulation & Expression	11:00	12:00	Tower G4	
BS31006	7	Tue	28/10/2014	BS31006-SEM1-A WorkshopA1 gr01 - Gene Regulation & Expression	13:00	15:00	Old Med Schl 2.02B (Life Sci)	Stark, Michael
BS31006	7	Tue	28/10/2014	BS31006-SEM1-A LecC1 gr01 - Gene Regulation & Expression	16:00	17:00	Old Med Schl 2.03	Zomerdijk, Joost
BS31006	7	Tue	28/10/2014	BS31006-SEM1-A LecB1 gr01 - Gene Regulation & Expression	17:00	18:00	Old Med Schl 2.03	Zomerdijk, Joost
BS31006	7	Wed	29/10/2014	BS31006-SEM1-A TutA gr02 - Gene Regulation & Expression	10:00	11:00	Dalhousie 1G15 (B)	
BS31006	7	Wed	29/10/2014	BS31006-SEM1-A TutA gr05 - Gene Regulation & Expression	11:00	12:00	Dalhousie 2S01 (B)	
BS31006	7	Wed	29/10/2014	BS31006-SEM1-A TutA gr10 - Gene Regulation & Expression (15)	11:00	12:00	Dalhousie 1G15 (B)	
BS31006	7	Wed	29/10/2014	BS31006-SEM1-A TutA gr11 - Gene Regulation & Expression (15)	12:00	13:00	Dalhousie 2F10 (B)	
BS31006	7	Thu	30/10/2014	BS31006-SEM1-A TutA gr08 - Gene Regulation & Expression (15)	09:00	10:00	Dalhousie 2S01 (B)	
BS31006	7	Thu	30/10/2014	BS31006-SEM1-A TutA gr12 - Gene Regulation & Expression (15)	09:00	10:00	Tower G3	
BS31006	7	Thu	30/10/2014	BS31006-SEM1-A LecD1 gr01 - Gene Regulation & Expression	10:00	11:00	Dalhousie 3G05 LT2	Zomerdijk, Joost
BS31006	7	Thu	30/10/2014	BS31006-SEM1-A TutA gr06 - Gene Regulation & Expression	12:00	13:00	Dalhousie 2F10 (B)	
BS31006	7	Thu	30/10/2014	BS31006-SEM1-A TutA gr13 - Gene Regulation & Expression (15)	12:00	13:00	Dalhousie 2S11 (B)	
BS31006	7	Thu	30/10/2014	BS31006-SEM1-A TutA gr04 - Gene Regulation & Expression	13:00	14:00	Dalhousie 2S01 (B)	
BS31006	7	Thu	30/10/2014	BS31006-SEM1-A TutA gr09 - Gene Regulation & Expression (15)	13:00	14:00	Dalhousie 2S11 (B)	
BS31006	7	Fri	31/10/2014	BS31006-SEM1-A LecH gr01 - Gene Regulation & Expression	10:00	11:00	Old Med Schl 2.03	
BS31006	7	Fri	31/10/2014	BS31006-SEM1-A LecE1 gr01 - Gene Regulation & Expression	11:00	12:00	Carnelley Small LT	Lamond, Angus
BS31006	7	Fri	31/10/2014	BS31006-SEM1-A TutA gr14 - Gene Regulation & Expression (15)	13:00	14:00	Dalhousie 2F10 (B)	
BS31006	7	Fri	31/10/2014	BS31006-SEM1-A TutA gr07 - Gene Regulation & Expression	14:00	15:00	Dalhousie 2S01 (B)	
BS31006	7	Fri	31/10/2014	BS31006-SEM1-A LecA2 gr01 - Gene Regulation & Expression	17:00	18:00	Old Med Schl 2.03	Lamond, Angus
BS31006	8	Tue	04/11/2014	BS31006-SEM1-A WorkshopA2 gr01 - Gene Regulation & Expression	13:00	15:00	Old Med Schl 2.02B (Life Sci)	Stark, Michael
BS31006	8	Tue	04/11/2014	BS31006-SEM1-A LecF2 gr01 - Gene Regulation & Expression (15)	15:00	16:00	Old Med Schl 2.03	Lamond, Angus
BS31006	8	Tue	04/11/2014	BS31006-SEM1-A LecC2 gr01 - Gene Regulation & Expression	16:00	17:00	Old Med Schl 2.03	Stark, Michael
BS31006	8	Thu	06/11/2014	BS31006-SEM1-A LecD2 gr01 - Gene Regulation & Expression	10:00	11:00	Dalhousie 3G05 LT2	Stark, Michael
BS31006	8	Fri	07/11/2014	BS31006-SEM1-A LecE2 gr01 - Gene Regulation & Expression	11:00	12:00	Carnelley Small LT	Stark, Michael

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BS31006	9	Mon	10/11/2014	BS31006-SEM1-A TutB gr03 - Gene Regulation & Expression	14:00	15:00	Dalhousie 2S01 (B)	
BS31006	9	Tue	11/11/2014	BS31006-SEM1-A TutB gr01 - Gene Regulation & Expression	11:00	12:00	Tower G2	
BS31006	9	Tue	11/11/2014	BS31006-SEM1-A LecC3 gr01 - Gene Regulation & Expression	16:00	17:00	Old Med Schl 2.03	Owen-Hughes, Thomas
BS31006	9	Wed	12/11/2014	BS31006-SEM1-A TutB gr02 - Gene Regulation & Expression	10:00	11:00	Dalhousie 1G15 (B)	
BS31006	9	Wed	12/11/2014	BS31006-SEM1-A TutB gr08 - Gene Regulation & Expression (15)	10:00	11:00	1 Perth Rd Accountancy SR	
BS31006	9	Wed	12/11/2014	BS31006-SEM1-A TutB gr09 - Gene Regulation & Expression (15)	10:00	11:00	Dalhousie 2S02 (B)	
BS31006	9	Wed	12/11/2014	BS31006-SEM1-A TutB gr05 - Gene Regulation & Expression	11:00	12:00	Dalhousie 2S01 (B)	
BS31006	9	Wed	12/11/2014	BS31006-SEM1-A TutB gr10 - Gene Regulation & Expression (15)	11:00	12:00	Dalhousie 1G15 (B)	
BS31006	9	Thu	13/11/2014	BS31006-SEM1-A TutB gr11 - Gene Regulation & Expression (15)	09:00	10:00	Tower G3	
BS31006	9	Thu	13/11/2014	BS31006-SEM1-A LecD3 gr01 - Gene Regulation & Expression	10:00	11:00	Dalhousie 3G05 LT2	Owen-Hughes, Thomas
BS31006	9	Thu	13/11/2014	BS31006-SEM1-A TutB gr12 - Gene Regulation & Expression (15)	11:00	12:00	Dalhousie 2S11 (B)	
BS31006	9	Thu	13/11/2014	BS31006-SEM1-A TutB gr06 - Gene Regulation & Expression	12:00	13:00	Dalhousie 2F10 (B)	
BS31006	9	Thu	13/11/2014	BS31006-SEM1-A TutB gr13 - Gene Regulation & Expression (15)	12:00	13:00	Dalhousie 2S11 (B)	
BS31006	9	Thu	13/11/2014	BS31006-SEM1-A TutB gr04 - Gene Regulation & Expression	13:00	14:00	Dalhousie 2S01 (B)	
BS31006	9	Thu	13/11/2014	BS31006-SEM1-A TutB gr14 - Gene Regulation & Expression (15)	13:00	14:00	Dalhousie 2S11 (B)	
BS31006	9	Fri	14/11/2014	BS31006-SEM1-A LecE3 gr01 - Gene Regulation & Expression	11:00	12:00	Carnelley Small LT	Owen-Hughes, Thomas
BS31006	9	Fri	14/11/2014	BS31006-SEM1-A TutB gr07 - Gene Regulation & Expression	14:00	15:00	Dalhousie 2S01 (B)	
BS31006	10	Mon	17/11/2014	BS31006-SEM1-A LecA4 gr01 - Gene Regulation & Expression	09:00	11:00	Old Med Schl 2.03	Russell, Jackie
BS31006	10	Mon	17/11/2014	BS31006-SEM1-A LecF gr01 - Gene Regulation & Expression	13:00	14:00	Old Med Schl 2.03	Gartner, Anton
BS31006	10	Mon	17/11/2014	BS31006-SEM1-A LecB2 gr01 - Gene Regulation & Expression	15:00	16:00	Old Med Schl 2.03	Tanaka, Tomoyuki
BS31006	10	Tue	18/11/2014	BS31006-SEM1-A LecC4 gr01 - Gene Regulation & Expression	16:00	17:00	Old Med Schl 2.03	Gartner, Anton
BS31006	10	Thu	20/11/2014	BS31006-SEM1-A LecD4 gr01 - Gene Regulation & Expression	10:00	11:00	Dalhousie 3G05 LT2	Gartner, Anton
BS31006	10	Fri	21/11/2014	BS31006-SEM1-A LecE4 gr01 - Gene Regulation & Expression	10:00	12:00	Tower Basement ITS C	Stark, Michael
BS31006	10	Fri	21/11/2014	BS31006-SEM1-A LecA3 gr01 - Gene Regulation & Expression	15:00	17:00	Old Med Schl 2.03	Rocha, Sonia
BS31006	11	Mon	24/11/2014	BS31006-SEM1-A LecA5 gr01 - Gene Regulation & Expression	09:00	10:00	Old Med Schl 2.03	Rouse, John
BS31006	11	Mon	24/11/2014	BS31006-SEM1-A LecG gr01 - Gene Regulation & Expression	13:00	14:00	Old Med Schl 2.03	McLean, Irwin
BS31006	11	Mon	24/11/2014	BS31006-SEM1-A LecB3 gr01 - Gene Regulation & Expression	15:00	16:00	Old Med Schl 2.03	McLean, Irwin
BS31006	11	Tue	25/11/2014	BS31006-SEM1-A LecC5 gr01 - Gene Regulation & Expression	16:00	17:00	Old Med Schl 2.03	Rocha, Sonia
BS31006	11	Thu	27/11/2014	BS31006-SEM1-A LecD5 gr01 - Gene Regulation & Expression	10:00	11:00	Dalhousie 3G05 LT2	Gartner, Anton
BS31006	11	Fri	28/11/2014	BS31006-SEM1-A LecE4 gr01 - Gene Regulation & Expression	10:00	12:00	Tower Basement ITS C	Stark, Michael

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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31013	1	Mon	15/09/2014	BS31013-SEM1-A LecA1 gr01 - Biomembranes	10:00	11:00	Matthew 5018	Taylor, Peter
BS31013	1	Tue	16/09/2014	BS31013-SEM1-A LecC1 gr01 - Biomembranes	16:00	17:00	Dalhousie 3G05 LT2	Taylor, Peter
BS31013	1	Tue	16/09/2014	BS31013-SEM1-A LecB1 gr01 - Biomembranes	17:00	18:00	Dalhousie 3G05 LT2	Taylor, Peter
BS31013	1	Fri	19/09/2014	BS31013-SEM1-A LecD1 gr01 - Biomembranes	17:00	18:00	Matthew 5018	Hundal, Harinder
BS31013	2	Mon	22/09/2014	BS31013-SEM1-A LecA2 gr01 - Biomembranes	10:00	11:00	Matthew 5018	Hundal, Harinder
BS31013	2	Tue	23/09/2014	BS31013-SEM1-A LecC2 gr01 - Biomembranes	16:00	17:00	Dalhousie 3G05 LT2	Hundal, Harinder
BS31013	2	Tue	23/09/2014	BS31013-SEM1-A LecB2 gr01 - Biomembranes	17:00	18:00	Dalhousie 3G05 LT2	Peters, John
BS31013	2	Fri	26/09/2014	BS31013-SEM1-A LecD2 gr01 - Biomembranes	17:00	18:00	Matthew 5018	Hormuzdi, Sheriar
BS31013	3	Mon	29/09/2014	BS31013-SEM1-A LecA3 gr01 - Biomembranes	10:00	11:00	Matthew 5018	Lambert, Jeremy
BS31013	3	Tue	30/09/2014	BS31013-SEM1-A ITSA gr03 - Biomembranes	10:00	12:00	Tower Basement ITS D	Taylor, Peter
BS31013	3	Tue	30/09/2014	BS31013-SEM1-A LecD3 gr01 - Biomembranes	16:00	17:00	Dalhousie 3G05 LT2	Lambert, Jeremy
BS31013	3	Tue	30/09/2014	BS31013-SEM1-A LecC3 gr01 - Biomembranes	17:00	18:00	Dalhousie 3G05 LT2	Lambert, Jeremy
BS31013	3	Wed	01/10/2014	BS31013-SEM1-A ITSA gr02 - Biomembranes	10:00	12:00	Tower Basement ITS D	Taylor, Peter
BS31013	3	Thu	02/10/2014	BS31013-SEM1-A ITSA gr04 - Biomembranes	16:00	18:00	Tower Basement ITS D	Taylor, Peter
BS31013	3	Fri	03/10/2014	BS31013-SEM1-A ITSA gr01 - Biomembranes	10:00	12:00	Tower Basement ITS D	Taylor, Peter
BS31013	4	Mon	06/10/2014	BS31013-SEM1-A LecA4 gr01 - Biomembranes	10:00	11:00	Matthew 5018	Lambert, Jeremy
BS31013	4	Tue	07/10/2014	BS31013-SEM1-A LecC4 gr01 - Biomembranes	16:00	17:00	Dalhousie 3G05 LT2	Lambert, Jeremy
BS31013	4	Tue	07/10/2014	BS31013-SEM1-A LecD4 gr01 - Biomembranes	17:00	18:00	Dalhousie 3G05 LT2	Lambert, Jeremy
BS31013	5	Mon	13/10/2014	BS31013-SEM1-A LecA5 gr01 - Biomembranes	10:00	11:00	Matthew 5018	Hormuzdi, Sheriar
BS31013	5	Tue	14/10/2014	BS31013-SEM1-A LecC5 gr01 - Biomembranes	16:00	17:00	Dalhousie 3G05 LT2	Hormuzdi, Sheriar
BS31013	5	Tue	14/10/2014	BS31013-SEM1-A LecB5 gr01 - Biomembranes	17:00	18:00	Dalhousie 3G05 LT2	Hormuzdi, Sheriar
BS31013	5	Fri	17/10/2014	BS31013-SEM1-A LecD5 gr01 - Biomembranes	17:00	18:00	Matthew 5018	Hormuzdi, Sheriar

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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31014	3	Thu	02/10/2014	BS31014-SEM1-A ITSA gr01 - Molecular Pharmacology	13:00	15:00	Ninewells IT Suite	Hormuzdi, Sheriar
BS31014	3	Thu	02/10/2014	BS31014-SEM1-A ITSA gr02 - Molecular Pharmacology	15:00	17:00	Ninewells IT Suite	Hormuzdi, Sheriar
BS31014	1	Wed	17/09/2014	BS31014-SEM1-A LecA1 gr01 - Molecular Pharmacology	11:00	13:00	Harris LT	Fuller, William
BS31014	2	Mon	22/09/2014	BS31014-SEM1-A LecA2 gr01 - Molecular Pharmacology	11:00	13:00	Old Med Schl 2.03	Hormuzdi, Sheriar
BS31014	3	Mon	29/09/2014	BS31014-SEM1-A LecA3 gr01 - Molecular Pharmacology	11:00	13:00	Old Med Schl 2.03	Hope, Anthony
BS31014	4	Mon	06/10/2014	BS31014-SEM1-A LecA4 gr01 - Molecular Pharmacology	11:00	13:00	Harris LT	Fuller, William
BS31014	5	Mon	13/10/2014	BS31014-SEM1-A LecA5 gr01 - Molecular Pharmacology	11:00	13:00	Old Med Schl 2.03	Connolly, Christopher
BS31014	5	Wed	15/10/2014	BS31014-SEM1-A LecA6 gr01 - Molecular Pharmacology (15)	11:00	12:00	Harris LT	Hormuzdi, Sheriar
BS31014	1	Tue	16/09/2014	BS31014-SEM1-A LecB1 gr01 - Molecular Pharmacology	13:00	15:00	Tower Baxter 1.36	Harvey, Jenni
BS31014	3	Tue	30/09/2014	BS31014-SEM1-A LecB3 gr01 - Molecular Pharmacology	13:00	15:00	Tower Baxter 1.36	Hales, Timothy
BS31014	4	Tue	07/10/2014	BS31014-SEM1-A LecB4 gr01 - Molecular Pharmacology	13:00	15:00	Tower Baxter 1.36	Harvey, Jenni
BS31014	5	Thu	16/10/2014	BS31014-SEM1-A LecB6 gr01 - Molecular Pharmacology (15)	10:00	12:00	Med Scis Inst LT	Hormuzdi, Sheriar, Hales, Timothy, Connolly, Christopher
BS31014	4	Fri	10/10/2014	BS31014-SEM1-A WkshpA gr01 - Molecular Pharmacology	13:00	16:00	Dalhousie 1S05 (G)	Hormuzdi, Sheriar
BS31014	4	Fri	10/10/2014	BS31014-SEM1-A WkshpA gr02 - Molecular Pharmacology	13:00	16:00	Dalhousie 2S14 (G)	

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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31015	1	Mon	15/09/2014	BS31015-SEM1-A LecA1 gr01 - Sport and Exercise Science I	09:00	10:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	1	Mon	15/09/2014	BS31015-SEM1-A LecB1 gr01 - Sport and Exercise Science I	11:00	12:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	1	Mon	15/09/2014	BS31015-SEM1-A Lab/PracA gr01 - Sport and Exercise Science I	14:00	15:30	ISE Studio 1 (ISE)	Duncan, Audrey
BS31015	1	Fri	19/09/2014	BS31015-SEM1-A TutA1 gr01 - Sport and Exercise Science I	12:00	13:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	1	Fri	19/09/2014	BS31015-SEM1-A LecC1 gr01 - Sport and Exercise Science I	14:00	15:00	ISE Lecture Room (ISE)	z A N Other (LSLT 1)
BS31015	2	Mon	22/09/2014	BS31015-SEM1-A LecA2 gr01 - Sport and Exercise Science I	09:00	10:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31015	2	Mon	22/09/2014	BS31015-SEM1-A LecB2 gr01 - Sport and Exercise Science I	11:00	12:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31015	2	Mon	22/09/2014	BS31015-SEM1-A Lab/PracB gr01 - Sport and Exercise Science I	14:00	15:30	ISE Sports Biomed & Research Unit (ISE)	Weavers, Helen, Duncan, Audrey
BS31015	2	Thu	25/09/2014	BS31015-SEM1-A Lab/PracC gr01 - Sport and Exercise Science I	14:00	16:00	ISE Sports Biomed & Research Unit (ISE)	Duncan, Audrey, Weavers, Helen
BS31015	2	Fri	26/09/2014	BS31015-SEM1-A Lab/PracD gr01 - Sport and Exercise Science I	14:00	15:30	ISE Sports Hall 1 (ISE)	Weavers, Helen
BS31015	3	Mon	29/09/2014	BS31015-SEM1-A LecA3 gr01 - Sport and Exercise Science I	09:00	10:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	3	Mon	29/09/2014	BS31015-SEM1-A Lab/PracE gr01 - Sport and Exercise Science I	14:00	16:00	ISE SPC Room (ISE)	Duncan, Audrey
BS31015	3	Thu	02/10/2014	BS31015-SEM1-A Lab/PracF gr01 - Sport and Exercise Science I	14:00	15:30	ISE SPC Room (ISE)	z A N Other (SPBI 1)
BS31015	3	Fri	03/10/2014	BS31015-SEM1-A TutA2 gr01 - Sport and Exercise Science I	12:00	13:30	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	3	Fri	03/10/2014	BS31015-SEM1-A Lab/PracG gr01 - Sport and Exercise Science I	15:30	17:00	ISE Sports Biomed & Research Unit (ISE)	Duncan, Audrey, Weavers, Helen
BS31015	4	Mon	06/10/2014	BS31015-SEM1-A LecA4 gr01 - Sport and Exercise Science I	09:00	10:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31015	4	Mon	06/10/2014	BS31015-SEM1-A LecB4 gr01 - Sport and Exercise Science I	11:00	12:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	4	Mon	06/10/2014	BS31015-SEM1-A Lab/PracH gr01 - Sport and Exercise Science I	14:00	15:30	ISE Sports Hall 1 (ISE)	Weavers, Helen
BS31015	4	Fri	10/10/2014	BS31015-SEM1-A TutA3 gr01 - Sport and Exercise Science I	12:00	14:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	4	Fri	10/10/2014	BS31015-SEM1-A Lab/PracI gr01 - Sport and Exercise Science I	15:30	17:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	5	Mon	13/10/2014	BS31015-SEM1-A LecA5 gr01 - Sport and Exercise Science I	09:00	10:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	5	Mon	13/10/2014	BS31015-SEM1-A LecB5 gr01 - Sport and Exercise Science I	11:00	12:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	5	Fri	17/10/2014	BS31015-SEM1-A TutA3 gr01 - Sport and Exercise Science I	12:00	14:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31015	5	Fri	17/10/2014	BS31015-SEM1-A ExamA gr01 - Sport and Exercise Science I	14:00	16:00	ISE Lecture Room (ISE)	Duncan, Audrey,

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Weavers, Helen

Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31016	7	Mon	27/10/2014	BS31016-SEM1-A TutA gr01 - Practical Techniques in Biomed	17:00	18:00	Matthew 5018	Land, Stephen
BS31016	7	Tue	28/10/2014	BS31016-SEM1-A Lab/PracA7 gr01 - Practical Techniques in Biomed	10:00	13:00	Ninewells Teaching Lab L7.051 (Medi)	Peters, John
BS31016	7	Wed	29/10/2014	BS31016-SEM1-A Lab/PracA7 gr02 - Practical Techniques in Biomed	09:00	12:00	Ninewells Teaching Lab L7.051 (Medi)	Peters, John
BS31016	7	Fri	31/10/2014	BS31016-SEM1-A Lab/PracA7 gr03 - Practical Techniques in Biomed	10:00	13:00	Ninewells Teaching Lab L7.051 (Medi)	Peters, John
BS31016	8	Mon	03/11/2014	BS31016-SEM1-A Lab/PracB8 gr01 - Practical Techniques in Biomed	10:00	12:00	Carnelley 1.04 (Life Sci)	Hormuzdi, Sheriar
BS31016	8	Tue	04/11/2014	BS31016-SEM1-A Lab/PracB8 gr04 - Practical Techniques in Biomed	09:00	11:00	Carnelley 1.04 (Life Sci)	Hormuzdi, Sheriar
BS31016	8	Tue	04/11/2014	BS31016-SEM1-A Lab/PracA8 gr01 - Practical Techniques in Biomed	14:00	17:00	Ninewells Teaching Lab L7.051 (Medi)	Hormuzdi, Sheriar
BS31016	8	Thu	06/11/2014	BS31016-SEM1-A Lab/PracB8 gr03 - Practical Techniques in Biomed	09:00	11:00	Carnelley 1.04 (Life Sci)	Hormuzdi, Sheriar
BS31016	8	Thu	06/11/2014	BS31016-SEM1-A Lab/PracA8 gr02 - Practical Techniques in Biomed	14:00	17:00	Ninewells Teaching Lab L7.051 (Medi)	Hormuzdi, Sheriar
BS31016	8	Fri	07/11/2014	BS31016-SEM1-A Lab/PracB8 gr02 - Practical Techniques in Biomed	10:00	12:00	Carnelley 1.04 (Life Sci)	Hormuzdi, Sheriar
BS31016	9	Mon	10/11/2014	BS31016-SEM1-A Lab/PracB9 gr01 - Practical Techniques in Biomedical Science (15)	14:00	16:00	Tower Basement ITS D	Hormuzdi, Sheriar
BS31016	9	Tue	11/11/2014	BS31016-SEM1-A ITSA9 gr01 - Practical Techniques in Biomed	09:00	11:00	Tower Basement ITS D	Harper, Alexander
BS31016	9	Tue	11/11/2014	BS31016-SEM1-A Lab/PracA9 - Practical Techniques in Biomedical Science (15)	13:00	16:00	Dalhousie 2F11 (G),Dalhousie 1G01 ITSuite 1,Dalhousie 3G05 LT2	Langston, Rosamund, Land, Stephen, Cooper Michelle, Bollan, Karen-Anne
BS31016	9	Thu	13/11/2014	BS31016-SEM1-A ITSA9 gr03 - Practical Techniques in Biomed	09:00	11:00	Tower Basement ITS D	Land, Stephen
BS31016	9	Thu	13/11/2014	BS31016-SEM1-A ITSA9 gr04 - Practical Techniques in Biomed	14:00	16:00	Tower Basement ITS D	Land, Stephen
BS31016	9	Thu	13/11/2014	BS31016-SEM1-A ITSA9 gr02 - Practical Techniques in Biomed	16:00	18:00	Tower Basement ITS D	Land, Stephen
BS31016	10	Tue	18/11/2014	BS31016-SEM1-A Lab/PracA10 gr01 - Practical Techniques in Biomed	13:00	16:00	Ninewells Teaching Lab L7.051 (Medi)	Peters, John
BS31016	10	Wed	19/11/2014	BS31016-SEM1-A Lab/PracA10 gr02 - Practical Techniques in Biomed	10:00	13:00	Ninewells Teaching Lab L7.051 (Medi)	Peters, John
BS31016	10	Thu	20/11/2014	BS31016-SEM1-A Lab/PracA10 gr03 - Practical Techniques in Biomed	09:00	12:00	Ninewells Teaching Lab L7.051 (Medi)	Peters, John
BS31016	10	Thu	20/11/2014	BS31016-SEM1-A ITSA10 gr01 - Practical Techniques in Biomed	13:00	14:30	Tower Basement ITS D	Peters, John
BS31016	10	Thu	20/11/2014	BS31016-SEM1-A ITSA10 gr04 - Practical Techniques in Biomed	14:30	16:00	Tower Basement ITS D	Peters, John
BS31016	10	Fri	21/11/2014	BS31016-SEM1-A ITSA10 gr02 - Practical Techniques in Biomed	15:00	16:30	Tower Basement ITS D	Peters, John
BS31016	10	Fri	21/11/2014	BS31016-SEM1-A ITSA10 gr03 - Practical Techniques in Biomed	16:30	18:00	Tower Basement ITS D	Peters, John
BS31016	11	Thu	27/11/2014	BS31016-SEM1-A WkshpA gr01 - Practical Techniques in Biomed	14:00	16:00	Carnelley D'Arcy Thom Museum (Life Sci)	Peters, John, Land, Stephen, Hormuzdi, Sheriar

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BS31016	11	Fri	28/11/2014	BS31016-SEM1-A WkshpA gr02 - Practical Techniques in Biomed	09:00	11:00	Carnelley D'Arcy Thom Museum (Life Sci)	Peters, John, Land, Stephen, Hormuzdi, Sheriar
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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31017	7	Mon	27/10/2014	BS31017-SEM1-A LecA1 gr01 - Sensory and Motor Neuroscienc	14:00	17:00	Old Med Schl 2.03	Hormuzdi, Sheriar
BS31017	7	Thu	30/10/2014	BS31017-SEM1-A WorkshopA gr01 - Sensory and Motor Neuroscienc	09:00	12:00	Ninewells IT Suite	Peters, John, Hormuzdi, Sheriar
BS31017	7	Fri	31/10/2014	BS31017-SEM1-A WorkshopA gr02 - Sensory and Motor Neuroscienc	13:00	16:00	Ninewells IT Suite	Rozov, Andrei, Hormuzdi, Sheriar
BS31017	8	Tue	04/11/2014	BS31017-SEM1-A LecA2a gr01 - Sensory and Motor Neuroscienc	11:00	13:00	Old Med Schl 2.03	Peters, John
BS31017	8	Thu	06/11/2014	BS31017-SEM1-A LecA2b gr01 - Sensory and Motor Neuroscience (15)	11:00	13:00	Old Med Schl 2.03	Peters, John
BS31017	9	Mon	10/11/2014	BS31017-SEM1-A WorkshopB gr01 - Sensory and Motor Neuroscienc	09:00	12:00	Ninewells IT Suite	Hormuzdi, Sheriar
BS31017	9	Tue	11/11/2014	BS31017-SEM1-A WorkshopB gr02 - Sensory and Motor Neuroscienc	09:00	12:00	Ninewells IT Suite	Hormuzdi, Sheriar
BS31017	9	Wed	12/11/2014	BS31017-SEM1-A LecA3 gr01 - Sensory and Motor Neuroscience (15)	11:00	13:00	Harris LT	Hormuzdi, Sheriar
BS31017	10	Mon	17/11/2014	BS31017-SEM1-A LecA4 gr01 - Sensory and Motor Neuroscience (15)	11:00	13:00	Scrymgeour 4.01	Hormuzdi, Sheriar
BS31017	10	Tue	18/11/2014	BS31017-SEM1-A LecB3 gr01 - Sensory and Motor Neuroscienc	11:00	12:00	Tower Baxter 1.36	Sammler, Esther
BS31017	10	Thu	20/11/2014	BS31017-SEM1-A LecC2 gr01 - Sensory and Motor Neuroscienc	17:00	18:00	Tower Baxter 1.36	Sammler, Esther
BS31017	10	Fri	21/11/2014	BS31017-SEM1-A LecC1 gr01 - Sensory and Motor Neuroscienc	13:00	15:00	Fulton J20	Hormuzdi, Sheriar
BS31017	11	Tue	25/11/2014	BS31017-SEM1-A LecA5a gr01 - Sensory and Motor Neuroscienc	11:00	13:00	Tower Baxter 1.36	Martin, Stephen
BS31017	11	Tue	25/11/2014	BS31017-SEM1-A LecB4 gr01 - Sensory and Motor Neuroscienc	15:00	16:00	Old Med Schl 2.03	Hormuzdi, Sheriar
BS31017	11	Tue	25/11/2014	BS31017-SEM1-A TutA gr01 - Sensory and Motor Neuroscienc	17:00	18:00	Tower G6	Hormuzdi, Sheriar
BS31017	11	Thu	27/11/2014	BS31017-SEM1-A LecA5b gr01 - Sensory and Motor Neuroscience (15)	11:00	13:00	Med Scis Inst LT	Martin, Stephen
BS31017	11	Thu	27/11/2014	BS31017-SEM1-A TutA gr02 - Sensory and Motor Neuroscience (15)	15:00	16:00	Dalhousie 2G14 (P)	Sammler, Esther
BS31017	11	Fri	28/11/2014	BS31017-SEM1-A WorkshopC gr01 - Sensory and Motor Neuroscience (15)	12:00	13:00	Tower Baxter 1.36	Hormuzdi, Sheriar, Martin, Stephen
BS31017	11	Fri	28/11/2014	BS31017-SEM1-A TutA gr03 - Sensory and Motor Neuroscience (15)	15:00	16:00	Dalhousie 1S05 (G)	Peters, John

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Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS31018	7	Mon	27/10/2014	BS31018-SEM1-A LecA7 gr01 - Sport and Exercise Science II	09:00	10:30	ISE Lecture Room (ISE)	Weavers, Helen
BS31018	7	Tue	28/10/2014	BS31018-SEM1-A LecB7 gr01 - Sport and Exercise Science II	16:00	17:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31018	7	Thu	30/10/2014	BS31018-SEM1-A TutA7 gr01 - Sport and Exercise Science II	15:30	17:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31018	7	Fri	31/10/2014	BS31018-SEM1-A LecC7 gr01 - Sport and Exercise Science II	14:00	15:00	ISE Lecture Room (ISE)	z A N Other (SPBI 1)
BS31018	8	Mon	03/11/2014	BS31018-SEM1-A LecA8 gr01 - Sport and Exercise Science II	09:00	10:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31018	8	Mon	03/11/2014	BS31018-SEM1-A Lab/PracA8 gr01 - Sport and Exercise Science II	14:00	16:00	ISE Gym (ISE)	Weavers, Helen
BS31018	8	Wed	05/11/2014	BS31018-SEM1-A LecB8 gr01 - Sport and Exercise Science II	09:00	10:00	ISE Lecture Room (ISE)	z A N Other (SPBI 1)
BS31018	8	Fri	07/11/2014	BS31018-SEM1-A LecC8 gr01 - Sport and Exercise Science II	14:00	15:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31018	8	Fri	07/11/2014	BS31018-SEM1-A TutA8 gr01 - Sport and Exercise Science II	15:00	16:30	ISE Lecture Room (ISE)	Weavers, Helen
BS31018	9	Mon	10/11/2014	BS31018-SEM1-A LecA9 gr01 - Sport and Exercise Science II	09:00	10:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31018	9	Mon	10/11/2014	BS31018-SEM1-A Lab/PracA9 gr01 - Sport and Exercise Science II	14:00	16:00	ISE SPC Room (ISE)	Duncan, Audrey
BS31018	9	Tue	11/11/2014	BS31018-SEM1-A LecB9 gr01 - Sport and Exercise Science II	16:00	17:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31018	9	Fri	14/11/2014	BS31018-SEM1-A Lab/PracB9 gr01 - Sport and Exercise Science II	11:00	12:00	ISE Studio 1 (ISE)	Duncan, Audrey
BS31018	9	Fri	14/11/2014	BS31018-SEM1-A TutA9 gr01 - Sport and Exercise Science II	15:30	17:00	ISE Lecture Room (ISE)	Duncan, Audrey
BS31018	10	Mon	17/11/2014	BS31018-SEM1-A LecA10 gr01 - Sport and Exercise Science II	09:00	10:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31018	10	Mon	17/11/2014	BS31018-SEM1-A Lab/PracA10 gr01 - Sport and Exercise Science II	14:00	16:00	ISE Sports Hall 1 (ISE)	Weavers, Helen
BS31018	10	Tue	18/11/2014	BS31018-SEM1-A LecB10 gr01 - Sport and Exercise Science II	16:00	17:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31018	10	Fri	21/11/2014	BS31018-SEM1-A Lab/PracB10 gr01 - Sport and Exercise Science II	10:00	12:00	ISE Studio 1 (ISE)	z A N Other (SPBI 1)
BS31018	10	Fri	21/11/2014	BS31018-SEM1-A LecC10 gr01 - Sport and Exercise Science II	14:00	15:00	ISE Lecture Room (ISE)	Weavers, Helen
BS31018	11	Tue	25/11/2014	BS31018-SEM1-A ExamA11 gr01 - Sport and Exercise Science II	09:00	12:00	ISE Sports Hall 1 (ISE)	Weavers, Helen, Duncan, Audrey
BS31018	11	Tue	25/11/2014	BS31018-SEM1-A LecA11 gr01 - Sport and Exercise Science II	16:00	17:00	ISE Lecture Room	Weavers, Helen

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							(ISE)	
BS31018	11	Fri	28/11/2014	BS31018-SEM1-A TutA11 gr01 - Sport and Exercise Science II	13:00	15:00	ISE Lecture Room (ISE)	Weavers, Helen

Level 4 Module timetables – remember that any changes to these will be announced on My Dundee so please check your modules daily.

Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS41004	14	Wed	17/12/2014	BS41004-SEM1-A LecA1 gr01 - Research Project: Biological Sciences	10:00	11:00	Dalhousie 3F01 LT3	Sargent, Frank, Morris, Linda
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A LecA2 gr01 - Research Project: Biological Sciences	09:00	10:00	Med Scis Inst LT	Sargent, Frank
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A Pres1 gr01 - Research Project: Biological Sciences (40)	09:00	17:00	Carnelley Large LT	Sargent, Frank
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A Pres2 gr01 - Research Project: Biological Sciences (40)	09:00	17:00	Carnelley Small LT	
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A Pres3 gr01 - Research Project: Biological Sciences (40)	09:00	17:00	Matthew 5015	
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A Pres4 gr01 - Research Project: Biological Sciences (40)	09:00	17:00	Matthew 5014	
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A Pres5 gr01 - Research Project: Biological Sciences (40)	09:00	17:00	Matthew 5013	
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A Pres6 gr01 - Research Project: Biological Sciences (40)	09:00	17:00	Matthew 5018	
BS41004	14	Thu	18/12/2014	BS41004-SEM1-A LecA3 gr01 - Research Project: Biological Sciences	17:00	18:00	Dalhousie 3F01 LT3	Sargent, Frank

Module	Week	Day	Date	Activity	Start	Finish	Location	Staff
BS41005	3	Mon	29/09/2014	BS41005-SEM1-A OtherA gr01 - Rsearch Skills in Biological Sciences	14:00	17:00	Dalhousie 1G10 (G)	Sargent, Frank
BS41005	3	Tue	30/09/2014	BS41005-SEM1-A OtherA gr02 - Rsearch Skills in Biological Sciences	14:00	17:00	Dalhousie 2G13 (G)	Sargent, Frank
BS41005	3	Wed	01/10/2014	BS41005-SEM1-A OtherA gr03 - Rsearch Skills in Biological Sciences	14:00	17:00	Dalhousie 2S12 (G)	Sargent, Frank
BS41005	3	Thu	02/10/2014	BS41005-SEM1-A OtherA gr04 - Rsearch Skills in Biological Sciences	14:00	17:00	Dalhousie 2G12 (G)	Sargent, Frank
BS41005	3	Fri	03/10/2014	BS41005-SEM1-A OtherA gr05 - Rsearch Skills in Biological Sciences	14:00	17:00	Dalhousie 2S16 (G)	Sargent, Frank
BS41005	14	Wed	17/12/2014	BS41005-SEM1-A LecA gr01 - Rsearch Skills in Biological Sciences	09:00	10:00	Dalhousie 3G02 LT1	
BS41005	14	Thu	18/12/2014	BS41005-SEM1-A PresentationA gr01 - Rsearch Skills in Biological Sciences	10:00	16:00	Tower G6	
BS41005	14	Thu	18/12/2014	BS41005-SEM1-A PresentationA gr02 - Rsearch Skills in Biological Sciences	10:00	16:00	Tower G5	
BS41005	14	Thu	18/12/2014	BS41005-SEM1-A PresentationA gr03 - Rsearch Skills in Biological Sciences	10:00	16:00	Tower T8	
BS41005	14	Thu	18/12/2014	BS41005-SEM1-A PresentationA gr04 - Rsearch Skills in Biological Sciences	10:00	16:00	Dalhousie 1G06 (G)	
BS41005	14	Thu	18/12/2014	BS41005-SEM1-A PresentationA gr05 - Rsearch Skills in Biological Sciences	10:00	16:00	Scrymgeour 2.12	

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BS41005	14	Thu	18/12/2014	BS41005-SEM1-A PresentationA gr06 - Rsearch Skills in Biological Sciences	10:00	16:00	Dalhousie 2G12 (G)	
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