School of Biology

Important Degree Information:

B.Sc./M.A. Honours
The general requirements are 480 credits over a period of normally 4 years(and not more than 5 years) or part-time equivalent; the final two years being an approved honours programme of 240 credits, of which 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 (H) levels. Refer to the appropriate Faculty regulations for lists of subjects recognised as qualifying towards either a B.Sc.or M.A. degree.

B.Sc./M.A. Honours with Integrated Year Abroad
The general requirements are 540 credits over a period of normally 5 years (and not more than 6 years) or part-time equivalent; the final three years being an approved honours programme of 300 credits, of which 60 credits are gained during the integrated year abroad, 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 (H) levels. Refer to the appropriate Faculty regulations for lists of subjects recognised as qualifying towards either a B.Sc. or M.A. degree.

Other Information: In the case of students who spend part of the Honours Programme abroad on a recognised Exchange Scheme, the Programme Requirements will be amended to take into account courses taken while abroad.With the permission of the Director of Teaching up to 20 credits may be taken in a module outwith the specified modules in the above Programmes. Entry to the Honours programme is at the discretion of the Director of Teaching, but is automatically granted for students gaining at least grade 12 in two of the prerequisite second year modules. Those who, at their first attempt, earn a minimum aggregate of 35 grade points from their second year modules will also be considered for entry.Where there are choices between modules in the programmes that follow, some options may have pre-requisites so that choices may be limited by the Pre-Honours modules taken.

The Honours syllabus is undergoing a major change commencing in 2002-03 and Programme requirements listed below are those for students entering the first year of the Honours Programme in 2002-03 or subsequently. Students entering the Second Year of the Honours programme in 2002-03 should refer to School Handbooks and consult Honours Advisers for the requirements of their honours programme.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Animal Biology**	**Single Honours Animal Biology Degree:** **Level 1:** 45 – 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001, BL2007, AND one of BL2002 or BL2004 or BL2005 **Level 3:** 120 - 125 credits comprising BL3001 or BL3021; BL 3002 or BL3022; BL3003 or BL3023; BL3004; BL3025 or BL3027; BL3008 or BL3026. BL3000 is also required if BL3021 is taken. **Level 4:** 120 credits comprising BL4104 or BL4107 or BL4121; BL4105 or BL4108 or BL4122; BL4109 or BL4125; BL4200; BL4300
(B.Sc. Honours): **Behavioural & Environmental Biology**	**Single Honours Behavioural & Environmental Biology B.Sc. Degree:** **Level 1:** 45 – 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001, BL2007 AND BL2004 or BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3004 or BL3024; BL3025 or BL3027; BL3026. **Level 4:** 120 credits comprising BL4121 or BL4124; BL4122 or BL4126; BL4123 or BL4125; BL4200; BL4300

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Biochemistry**	**Single Honours Biochemistry Degree:** **Level 1:** 45 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees **Level 2:** 65 credits comprising BL2007 and any TWO of BL2201, BL2202, BL2002 and BL2006. If neither BL2201 or BL2202 are taken, students should have a Chemistry background from 1000 level modules/A-levels/Scottish Highers. **Level 3:** 120 credits comprising BL3001; BL3002; BL3003; BL3004 or BL3102; BL3005 or BL3007; BL3006 **Level 4:** 120 credits comprising BL4101; BL4102; BL4103; BL4200; BL4300
(B.Sc. Honours): **Biology**	**Single Honours Biology Degree:** **Level 1:** 45 - 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; BL1002 is also required for programmes including Environmental Biology. **Level 2:** 60 credits comprising BL2007 and any other two biological second year modules. **Level 3:** 120 - 125 credits comprising a free choice of modules as approved by the Degree Controller & Director of Teaching. BL3000 is required if BL3021 is taken. **Level 4:** 120 credits comprising a free choice of modules as approved by the Degree Controller & Director of Teaching. No more than 2 from BL4121, BL4122 and BL4123
(B.Sc. Honours): **Biology with French^ or German^** ^also available as 'with Integrated Year Abroad Degrees'	**Biology element of Major Degree with French or German:** **Level 1:** 45 credits comprising asses in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees. **Level 2:** 65 credits comprising BL2007 and any other two biological second year modules **Levels 3 & 4:** 180 credits. Typically 80 credits at level 3 and 100 credits at level 4. BL4200 and a further 135 credits taken from the groups defined for a Single Honours Degree subject to the permission of the Director of Teaching. If BL3021 or any modules in the range BL4121 – B4126 are chosen, then BL3000 is also required.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Biomolecular Science**	**Biomolecular Science (B.Sc. Honours):** **Level 1:** 45 credits comprising Biology element:Passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees. Chemistry element: 20 – 40 credits comprisingPass or bypass for CH1001, pass in CH1004 **Level 2:** 125 credits comprising BL2007 and passes at 11 or better in BI2201, BI2202, CH2101 and CH2103 **Level 3:** 120 credits comprising Biology Element: BL3001; BL3002; BL3009; BL3010 and modules as listed in the entry for Chemistry Chemistry Element: CH3611, CH3612, CH3613, CH3621, CH3432, CH4613 **Level 4 (H):** 40 - 100 credits comprising Biology Element: TWO of BL4101, BL4102, BL4103; plus (BL4200 and BL4300) if CH4442 is NOT taken. If BL4200 is taken CH5614 and ONE of (CH5513, CH5612, CH5411) may be taken as an alternative to BL4300 Chemistry Element: 40 - 80 credits CH4442 (if BL4200 is NOT taken); TWO from (CH4611, CH4511, CH4612); CH5614 and ONE of (CH5513, CH5612, CH5411). If BL4200 is taken BL4300 may be taken as an alternative to CH5614 and ONE of (CH5513, CH5612, CH5411). If CH4442 is taken then BL4300 maybe taken as an alternative to ONE of (CH5513, CH5612, CH5411). Chemistry: Direct entry into Level 2000 is possible, in which case credit of 120 credits at level 1000 is given on the basis of school examinations. In the case of students who spend part of the Honours Programme abroad on a recognised Exchange Scheme, the Programme Requirements will be amended to take into account courses taken while abroad.
(B.Sc. Honours): **Cell Biology & Pathology**	**Single Honours Cell Biology & Pathology Degree:** **Level 1:** 45 credits comprising passes in BL1001 and BL1201 are normally required for entry to Single Honours Degrees. **Level 2:** 65 credits comprising BL2007 and any TWO of BL2201, BL2202, BL2002 and BL2006 **Level 3:** 120 credits comprising BL3001; BL3002; BL3003; BL3004 or BL3102; BL3005 or BL3007; BL3006 or BL3008 **Level 4:** 120 credits comprising BL4104; BL4105; BL4103 or BL4106 or BL4109; BL4200; BL4300
(B.Sc. Honours): **Environmental Biology**	**Single Honours Environmental Biology Degree:** **Level 1:** 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001 and BL2007 or BL2003, and BL2004 or BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3024; BL3025 or BL3027; BL3026 **Level 4:** 120 credits comprising BL4121 or BL4124; BL4122 or BL4126; BL 4123 or BL4125; BL4200; BL4300 No more than 2 from BL4121, BL4122 and BL4123

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Environmental Biology & Geography**	**Environmental Biology element of Geography Joint Degree:** **Level 1:** 45 credits comprising passes in BL1001 and BL1003. BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001 and BL2007 or BL2003, and BL2004 or BL2005 **Level 3:** 65 credits comprising BL3000; and any three of BL3021 – BL3027. **Level 4(H):** 55 - 60 credits comprising i) any two of BL4121 – BL4126; and BL4300 OR ii) three from BL4121 - BL4126.
(B.Sc. Honours): **Environmental Biology & Geoscience**	**Environmental Biology of Geoscience Joint Degree :** **Level 1:** 45 credits comprising a pass in BL1001 and BL1003. BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001 and BL2007 or BL2003, AND BL2004 or BL2005 **Level 3:** 65 credits comprising BL3000; BL3021; BL3022; BL3023 **Level 4:** 60 credits comprising THREE from BL4121 – BL4126
(B.Sc. Honours): **Evolutionary & Environmental Biology**	**Single Honours Evolutionary & Environmental Biology Degree:** **Level 1:** 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001 and BL2007 or BL2003, AND BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL 3002 or BL3022; BL3023; BL3024; BL3025 or BL3027; BL 3008 or BL3026 **Level 4:** 120 credits comprising BL4124; BL4126; BL4109 or BL4125; BL4200; BL4300
(B.Sc. Honours): **Human Biology**	**Single Honours Human Biology Degree:** **Level 1:** 65 credits comprising Passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; and BL1004 is required for Human Biology. **Level 2:** 65 credits comprising BL2002 AND BL2006 and BL2007 **Level 3:** 120 - 125 credits comprising BL3001 or BL3021; BL3002; BL3003 or BL3023; BL3004 or BL3102 or BL3024; BL3005 or BL3007 or BL3025; BL3008 or BL3026. BL3000 is also required if BL3021 is taken. **Level 4:** 120 credits comprising BL4104 or BL4107; BL4105 or BL4108; BL4106 or BL4109 or BL4110; BL4200; BL4300 Must include at least one of BL4107 or BL4108
(B.Sc. Honours): **Marine & Environmental Biology**	**Single Honours Marine & Environmental Biology Degree:** **Level 1:** 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001 and BL2007 or BL2003, AND BL2004 or BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3024; BL3027; BL3026. **Level 4:** 120 credits comprising BL4121; BL4122; BL 4123; BL4200; BL4300

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Neuroscience**	**Biology element of Single Honours Neuroscience Degree:** **Level 1:** 45 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees. **Level 2:** 65 credits comprising BL2007 and any TWO of BL2201, BL2202, BL2002 and BL2006 **Level 3:** 120 credits comprising BL3001; BL3002; BL3003; BL3004; BL3007; BL3008 **Level 4:** 120 credits comprising BL4107; and either BL4200 or PS4050 plus PS4005. Also modules as listed under the School of Psychology entry for this degree
(B.Sc. Honours): **Physiology**	**Single Honours Physiology Degree:** **Level 1:** 45 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees. **Level 2:** 65 credits comprising BL2007 and any TWO of BL2201, BL2202, BL2002 and BL2006 **Level 3:** 120 credits comprising BL3001; BL3002; BL3003; BL3004; BL3007; BL3008. **Level 4:** 120 credits comprising BL4107; BL4108; BL4106 or BL4109 or BL4110; BL4200; BL4300
(B.Sc. Honours): **Plant & Environmental Biology**	**Single Honours Plant & Environmental Biology Degree:** **Level 1:** 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees; BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2003, BL2007 and BL2004 or BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3024; BL3025 or BL3027; BL3006 or BL3026 **Level 4:** 120 credits comprising BL4124; BL4126; BL4125; BL4200; BL4300
(B.Sc. Honours): **Zoology**	**Single Honours Zoology Degree:** **Level 1:** 65 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees. BL1002 is also required for programmes including Environmental Biology. **Level 2:** 65 credits comprising BL2001, BL2007 and one of BL2002 or BL2004 or BL2005 **Level 3:** 120 - 125 credits comprising BL3001 or BL3021; BL 3002 or BL3022; BL3003 or BL3023; BL3004; BL3025 or BL3027; BL3008 or BL3026. BL3000 is also required if BL3021 is taken. **Level 4:** 120 credits comprising BL4104 or BL4107 or BL4121; BL4105 or BL4108 or BL4122; BL4109 or BL4125; BL4200; BL4300

Modules

Biology (BL) Modules

BL1001 Cell Biology and Genetics

Credits: 20.0 Semester: 1

Description: This module provides an introduction to cell, molecular and developmental biology as well as genetics. The course starts by examining the components of a cell and how they are studied. After an introduction to molecular genetics, we continue with Mendelian, chromosomal and linkage genetics before considering how an organism develops from a single cell. An overview of molecular biology is followed by a discussion of energy generation in cells. Practicals centre on the use of microscopy in cell biology and development.

Class Hour: 10.00 am

Teaching: Four lectures, one seminar or tutorial and one 3 hour laboratory.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: 2 Hour Examination and Oral if deemed necessary = 100%

BL1002 Biology of Organisms

Credits: 20.0 Semester: 2

Prerequisite: BL1001

Description: This module provides an introduction to the basic systems that underlie the enormous diversity of living organisms as well as reviewing some of that diversity. The original home of all life was in the sea, but some of the most interesting and dramatic changes to organisms have occurred in those groups that have adapted to a terrestrial life. Starting with the origin of life, we will consider how it evolved in the sea, and then how plants and animals made the move to land and the adaptations that have enabled them to survive and reproduce in various habitats. The subject of animal behaviour will be introduced, as it has a crucial role in the interactions between animals and their environment. The interaction between the environment, hormones and behaviour in the reproduction of animals will also be discussed. The course finishes with lectures on the principles of ecology that underlie the diversity and the pattern of adaptations of organisms. Practical work will be on both plant and animal material, and will introduce a variety of techniques.

Class Hour: 10.00 am

Teaching: Four lectures, one seminar or tutorial and one laboratory.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: 2 Hour Examination and Oral if deemed necessary = 100%

BL1003 Quantitative Methods in Biology

Credits: 5.0 Semester: 2

Anti-requisite: Any MT1000 level module

Description: The aim of the module is to teach and reinforce the understanding and use of basic quantitative skills in a biological context as a preparation for Honours courses in the School of Biology. Topics covered include: (i) manipulation of equations, measurement errors and accuracy, straight lines and proportional relationships in biology; (ii) using index notation to describe exponential growth, numbers in standard form; (iii) representing and measuring change in biology; (iv) the use of logarithms in biology (exponential growth, handling large and small numbers, pH); (v) more curved line relationships in biology (the allometric, quadratic and rectangular hyperbola); (vi) basic statistics (presentation of data, statistical descriptors, estimation from a sample, confidence intervals, hypothesis testing). All topics involve developing calculator skills and graphing techniques.

Class Hour: To be arranged.

Teaching: Self-teaching workbook and six tutorials.

Assessment: Multiple Choice Test = 100%, test available in semester 2. Passing the test (or exemption from it) is a pre-requisite for entry into Honours Biology.

Re-Assessment: Repeats of Multiple Choice Test = 100%

BL1004 Human Biology

Credits: 20.0 Semester: 1

Description: This module gives a broad-based introduction to the varied fields of study which relate to Human Biology. It covers our evolution as a species, the basic structure and functions of our bodies, the ways in which we survive on this planet, the organisms which use us for their own survival, and the ways in which we think, communicate, reproduce and eventually die. This module is designed to be accessible to students with or without a background in biology.

Class Hour: 9.00 am

Teaching: Four lectures and one seminar/tutorial.

Assessment: Continuous Assessment = 50%, 2 Hour Written Examination = 50%

Re-Assessment: 2 Hour Examination and Oral Examination if deemed necessary = 100%

BL1201 Molecular Biology

Credits: 20.0 Semester: 2

Prerequisites: CH1001 or BL1001

Description: This module will introduce students to the molecular concepts and techniques that have revolutionised biology in the last few decades. It forms a valuable basis for all branches of modern biology, and for biological chemistry. It includes an introduction to the structure and function of proteins and enzymes, the molecular basis of genetics, DNA cloning and its application to biotechnology and human genetics, a brief introduction to molecular immunology and microbiology, and the molecular basis of cancer.

Class Hour: 9.00 am

Teaching: Four lectures and one 3 hour laboratory and fortnightly seminars or tutorials.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

Re-Assessment: 2 Hour Examination and Oral if deemed necessary = 100%

BL2001 Animal Diversity

Credits: 30.0 Semester: 1

Prerequisite: BL1001

Description: This module provides an introduction to animal biology and diversity, and is suitable for students interested in environmental topics or animal biology. The module begins with a brief introduction to animal design, and the development of differing body plans, then a look at the lowest animal groups and the great diversity of ‘worms’, molluscs and annelids and their successful strategies, outshone by the huge radiation of anthropod groups. Lowly relatives of vertebrates and the origins and evolution of the true vertebrates are considered. Emphasis throughout is on design, adaptation and evolution, and the relationships between different groups of animals.

Class Hour: 11.00 am

Teaching: Five lectures and at least 3 hours of laboratories per week and four tutorials during the semester.

Assessment: Continuous Assessment = 50%, 3 Hour Examination = 50%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

BL2002 Cell Physiology

Credits: 30.0 Semester: 1

Prerequisite: BL1001

Description: This module provides a basic introduction to physiology and histology, and concentrates on the inter-relationship between cell structure and cell function. Topics include: the cell as a physiological unit, homeostasis and the control of intracellular environment, the origin of the resting potential, the action potential, neural and synaptic transmission, cell growth factors and cell population dynamics, haematopoiesis and the immune system, introductory neurophysiology and neuroanatomy, structure and function of muscle, molecular endocrinology. The practical work will include experimental studies and computer simulations.

Class Hour: 9.00 am

Teaching: Five lectures and an average of 3 hours of laboratory.

Assessment: Continuous Assessment = 50%, 3 Hour Examination = 50%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

Biology

BL2003 Plant Function and Diversity

Credits: 30.0 Semester: 1

Prerequisite: BL1001

Description: This module will introduce plant biology, with especial emphasis on diversity and physiology of plants. It is suitable for students who wish to pursue Marine Biology, Environmental Biology or Plant Biology options to Honours. Topics include: diversity and ecology of algae; bryophytes; the rise of the seed habit and origins of diversity in plants; reproductive and pollination biology; distribution of past and present day plant communities; physiology of photosynthesis, nutrient metabolism and control of growth and differentiation.

Class Hour: 12.00 noon.

Teaching: Five lectures and at least 3 hours of laboratory per week, and four tutorials per semester.

Assessment: Continuous Assessment = 50%, 3 Hour Examination = 50%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

BL2004 Comparative Biology

Credits: 30.0 Semester: 2

Prerequisite: BL1001

Description: This module will cover the design and functioning of all multicellular organisms as a series of comparative sub-units encouraging a wide understanding of how organisms work and how they interact. This will include studies of support, locomotion and scaling; coordination by nervous systems and chemical signals; development, reproduction and life cycles; environmental adaptation; and animal and plant associations. Each sub-unit will cover a wide range of both invertebrate and vertebrate animals, plus the major groups of multicellular plants.

Class Hour: 12.00 noon.

Teaching: Five lectures and one 3 hour laboratory per week and fortnightly seminars and tutorials.

Assessment: Continuous Assessment = 50%, 3 Hour Examination = 50%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

BL2005 Evolutionary Biology

Credits: 30.0 Semester: 2

Prerequisites: BL1001

Description: This module will introduce students to evolutionary biology; theory and history; mechanisms of heredity, change and adaptation; population dynamics; speciation and biodiversity. Topics covered will include the history of evolutionary ideas; mechanisms of inheritance of simple and complex characters; mutation and genetic variability; fitness, adaptation and natural selection; population genetics; modes of reproduction; diversity within and among species; evolutionary trends; phylogeny and taxonomy; molecular evolution and evolutionary ecology.

Class Hour: 11.00 am

Teaching: Five lectures each week, one tutorial or one 3 hour laboratory each week.

Assessment: Continuous Assessment = 50%, 3 Hour Examination = 50%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

BL2006 Human Systems Physiology

Credits: 30.0 Semester: 2

Prerequisites: BL1001 and BL2002

Description: This module will describe the function and integration of the physiological systems of the human body. It will include: special senses, vision, hearing, taste and smell; the cardiovascular system; the hormones and enzymes of the gastrointestinal tract; the reproductive system; the hormonal control of reproduction; the contraceptive pill; the urinary system; the respiratory system, lung mechanisms and gas exchange, exercise physiology, training, energetics and fatigue.

Class Hour: 9.00 am

Teaching: Five lectures and an average 3 hours of laboratories a week.

Assessment: Continuous Assessment = 50%, 3 Hour Examination = 50%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

BL2007 Statistics for Biologists

Credits: 5.0 Semester: 1

Prerequisite: BL1003

Description: The aim of the module is to provide an understanding of statistical analysis and the application of tests to biological data. The module is a foundation for Honours courses in the School of Biology. Topics covered include: (i) experimental design; (ii) types of data, data distribution and the use of descriptive statistics; (iii) inferential statistics, using data from samples to make predictions about populations, confidence intervals; (iv) the concept of hypothesis testing; (v) tests for comparing samples (t-test, paired t-test, ANOVA, Mann-Whitney, Wilcoxon, Kruskal-Wallis, chi-square) and for describing relationships between variables (Pearson and Spearman correlations, linear regression); (vi) the analysis of power and error in tests. All topics involve the use of computers.

Class Hour: To be arranged.

Teaching: Ten seminars/lectures, self-teaching computer based interactive workbook, supported by tutorials.

Assessment: Multiple choice test = 50%, Problem based test = 50%. Passing the test is a prerequisite for entry into Honours Biology and re-assessment is acceptable.

Re-Assessment: Repeats of Multiple choice test = 50%, Problem based test = 50%

BL2201 Biochemistry

Credits: 30.0 Semester: 1

Prerequisites: CH1001, CH1004 and BL1201

Description: This module is an essential preparation for entry to Honours classes in Biochemistry and builds on the First Level Molecular Biology module, taking a more chemical and quantitative approach to biochemical science. The syllabus consolidates and extends the work of the First Level Molecular Biology module's treatment of mammalian metabolism, its integration and control, and will extend, in comparative approach, to microbial and plant systems.

Class Hour: 10.00 am

Teaching: Four lectures, one 3 hour laboratory and weekly seminars and tutorials.

Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

BL2202 Applied Biochemistry

Credits: 30.0 Semester: 2

Prerequisite: BL2201

Description: This module, for which the Second Level Biochemistry module would be the normal prerequisite, emphasises applied aspects of biochemistry and molecular biology. Coverage includes medical biochemistry, with emphasis on neurochemistry, toxicology and clinical enzymology, together with a firm foundation in microbiology and biotechnology.

Class Hour: 10.00 am

Teaching: Four lectures, one 3 hour laboratory and weekly seminars and tutorials.

Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

Re-Assessment: 3 Hour Examination and Oral if deemed necessary = 100%

BL2401 Sport & Exercise Science

Credits: 30.0 Semester: 2

Description: This module leads the student towards an understanding of how the human body functions in an exercise and sports context. The structure and function of the major body systems are examined in relation to the following topics: the value of exercise to health; fitness and its acquisition; the principles of training; acquiring motor skills; environmental influences on performance; physical conditioning for sport and exercise; diet and nutrition for sport. Students contemplating opting for this module should have an interest in sport and exercise and they will be required to participate in laboratory practicals involving exercise.

Class Hour: 11.00 am

Teaching: Four lectures and one laboratory, and four tutorials during the semester.

Assessment: Continuous Assessment = 50%, 3 Hour Examination = 50%

Re-Assessment: 3 Hour Examination and oral if deemed necessary = 100%

The details of the Honours modules – that is 3000 and 4000(H) level modules – which relate to the programmes listed in this section, are available in the Honours Course Catalogue.