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 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 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 per programme 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 11 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.

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 elements of environmental biology. **Level 2:** 65 credits comprising BL2001, BL2007; at least one of BL2002 or BL2004 or BL2005 **Level 3:** 120 - 125 credits comprising BL3001 or BL3021; BL3002 or BL3022; BL3003 or BL3023; BL3004; BL3025; BL3008 or BL3027. BL3000 is also required if BL3021 is taken, and both of these are required if BL3022 is taken. **Level 4:** 120 credits comprising BL4112 or BL4107 or BL4122; BL4108 or BL4121or BL4127; BL4109 or BL4125; BL4200; BL4300
(B.Sc. Honours): **Behavioural & Environmental Biology**	**Single Honours Behavioural & Environmental Biology B.Sc. 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 elements of environmental biology. **Level 2:** 65 credits comprising BL2001; BL2007; BL2004 or BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3004 or BL3024; BL3025; BL3027 **Level 4:** 120 credits comprising BL4122 or BL4124; BL4127; BL4123 or BL4125; BL4200; BL4300. Students may take no more than 2 modules from BL4121, BL4122, BL4123

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; BL2201; at least one from BL2203, BL2002, BL2006 **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 elements of environmental biology. **Level 2:** 65 credits comprising BL2007 and any other two Biology (BL) 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, and both are required if BL3022 is taken. **Level 4:** 120 credits comprising a free choice of modules as approved by the Degree Controller & Director of Teaching, but including BL4200 and BL4300. No more than 2 from BL4121, BL4122 and BL4123
(B.Sc. Honours): **Biology with French^ or German^ or Spanish^** ^also available as 'with Integrated Year Abroad Degrees'	**Biology element of Major Degree with French or German:** **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 other two Biology (BL) 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 to B4129 are chosen, then BL3000 is normally also required.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Biomolecular Science**	**Biomolecular Science (B.Sc. Honours):** **Level 1:** Biology Element: 45 credits comprising passes in BL1001, BL1003 and BL1201 are normally required for entry to Single Honours Degrees. Chemistry Element: 20 – 40 credits comprising pass 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 Chemistry Element: CH3611, CH3612, CH3613, CH3621, CH3432, CH4613 **Level 4 (H):** 120 credits comprising two of (BL4101, BL4102, BL4103), two of (CH4511, CH4611, CH4612) and either (BL4200 and BL4300) or [BL4200, CH5614 and one of (CH5411, CH5511, CH5612)] or [CH4442, CH5614 and one of (CH5411, CH5513, CH5612)] Chemistry: Direct entry into Level 2000 is possible, in which case 120 advanced standing credits at level 1000 are given. 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, BL1003 and BL1201 are normally required for entry to Single Honours Degrees. **Level 2:** 95 credits comprising BL2007; BL2203; BL2002; BL2006 **Level 3:** 120 credits comprising BL3001; BL3002; BL3003; BL3004 or BL3102; BL3005 or BL3007; BL3006 or BL3008 **Level 4:** 120 credits comprising BL4112; BL4108; BL4103 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 elements of environmental biology. **Level 2:** 65 credits comprising BL2007; BL2001 or BL2003; BL2004 or BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3024; BL3025; BL3027 **Level 4:** 120 credits comprising BL4124 or BL4129; BL4121 or BL4126; BL4123 or BL4125; BL4200; BL4300

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 elements of environmental biology. **Level 2:** 65 credits comprising BL2007; BL2001 or BL2003; BL2004 or BL2005 **Level 3:** 65 credits comprising BL3000; and any three of BL3021 to BL3027 **Level 4:** 55 - 60 credits comprising i) any two of BL4121 to BL4129; and BL4300 OR ii) three from BL4121 to BL4129
(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 elements of environmental biology. **Level 2:** 65 credits comprising BL2007; BL2001 or BL2003; BL2004 or BL2005 **Level 3:** 65 credits comprising BL3000; BL3021; BL3022; BL3023 **Level 4:** 55 - 60 credits comprising i) any two of BL4121 to BL4129; and BL4300 OR ii) three from BL4121 to BL4129
(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 elements of environmental biology. **Level 2:** 65 credits comprising BL2007; BL2001 or BL2003; BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3002 or BL3022; BL3023; BL3024; BL3025; BL3027 or BL3008 **Level 4:** 120 credits comprising BL4124; BL4121 or BL4126; BL4103 (if BL3002 was taken) or 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. BL1004 is additionally required for the Human Biology Degree. **Level 2:** 65 credits comprising BL2002; BL2006; 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. BL3000 is also required if BL3021 is taken. **Level 4:** 120 credits comprising BL4112 or BL4107 or BL4129; BL4108; BL4109 or BL4110; BL4200; BL4300
(B.Sc. Honours): **Marine & Environmental Biology** **NOTE Alternative degree title of Marine Biology will be available from 2005/06**	**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 elements of environmental biology. **Level 2:** 65 credits comprising BL2007; BL2001 or BL2003; BL2004 or BL2005. **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3024; BL3025; BL3027 **Level 4:** 120 credits comprising BL4121; BL4122; BL4123; BL4200; BL4300

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Molecular Biology**	**Single Honours Molecular Biology Degree:** **Level 1:** 45 credits comprising passes in BL1001; BL1003; BL1201 **Level 2:** 65 credits comprising BL2007; BL2201;and BL2203 **Level 3:** 125 credits comprising BL3001; BL3002; BL3003; BL3004; BL3005; BL3008 **Level 4:** 120 credits comprising BL4101 or BL4112; BL4102; BL4103; BL4200; BL4300
(B.Sc. Honours): **Neuroscience**	**Biology element of Single Honours Neuroscience Degree (Psychology requirements listed under School of Psychology entry):** **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; BL2002; BL2203 or BL2006 **Level 3:** 120 credits comprising BL3001; BL3002; BL3003; BL3004; BL3007; BL3008 **Level 4:** 120 credits comprising BL4107 or BL4127; 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; BL2002; BL2006 **Level 3:** 120 credits comprising BL3001; BL3002; BL3003; BL3004; BL3007; BL3008 **Level 4:** 120 credits comprising BL4107 or BL4112; BL4108; 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 elements of environmental biology. **Level 2:** 65 credits comprising BL2003; BL2007; BL2004 or BL2005 **Level 3:** 125 credits comprising BL3000; BL3021; BL3022; BL3023; BL3024; BL3025; BL3027; **Level 4:** 120 credits comprising BL4124 or BL4129; 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 elements of environmental biology. **Level 2:** 65 credits comprising BL2001; BL2007; BL2002 or BL2004 or BL2005 **Level 3:** 120 - 125 credits comprising BL3001 or BL3021; BL3002 or BL3022; BL3003 or BL3023; BL3004; BL3025; BL3008 or BL3027. BL3000 is also required if BL3021 is taken, and both of these are required if BL3022 is taken. **Level 4:** 120 credits comprising BL4107 or BL4122 or BL4124 (if BL3023 was taken); BL4121 or BL4127; BL4109 or BL4125; BL4200; BL4300

Modules
Interdisciplinary (ID) Modules

This School contributes to the following inter-disciplinary modules – **ID1002 Sustainability: ensuring our common future** and **ID2003 Science Methods** These appear in the Interdisciplinary Section of the Catalogue (Section 21)

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

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). All topics involve developing calculator skills and graphing techniques.

NOTE: the Biology requirement for BL1003 can be waived if any MT1000 level module is taken and passed.

NOTE: module content is currently being reviewed and may change.

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 arthropod 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%

Biology

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%

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; the urinary system; the respiratory system, lung mechanisms and gas exchange.

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.

NOTE: the Biology requirement for BL2007 can be waived if any MT2000 level module is taken and passed.

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 and Molecular Biology

Credits: 30.0 Semester: 1

Prerequisites: BL1201

Description: This module builds on BL1201 Molecular Biology. The module will further develop the understanding and application of techniques, skills and concepts which are integral to the revolution which has occurred in the Biological sciences in recent years. The module is essential underpinning for all branches of modern Biology and Biochemistry. The lectures include coursework on biological molecular architecture, cellular architecture, proteomics and genomics. Special lectures on relevant current issues and key techniques are also incorporated. The laboratory course will develop practical skills and the use of bioinformatics resources.

Class Hour: 10.00 am

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

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

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

Biology

BL2203 Microbial Infection and Disease

Credits: 30.0 Semester: 2

Prerequisite: BL1201

Anti-requisite: BL2202

Description: Microbes, as well as causing self-limiting acute infections and chronic illness, are still responsible for approximately one-third of deaths worldwide. This module will explore the molecular biology and biochemistry of how bacteria, viruses and parasites cause disease and how, using this knowledge, infectious diseases are controlled by drugs and vaccines. The laboratory course will introduce you to basic microbial techniques.

Class Hour: Lectures/tutorials 10.00 am daily and practical classes 2.00 – 5.00 pm Monday or Tuesday

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

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

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.