

## Honours Arts & Science and Biology

### ADMISSION

Completion of Arts & Science I with a grade point average of at least 6.0 and an average of at least 7.0 in BIOLOGY 1A03, 1M03 and CHEM 1A03, 1AA3.

### NOTES:

1. See additional notes in the Undergraduate Calendar, Faculty of Science, Department of Biology.
2. Students are advised to note carefully the prerequisites for all Level III and IV courses listed in the program.
3. Students must complete 9 units from BIOLOGY 2A03, 2B03, 2D03, 2EE3, 2F03. Additional units from this list may be used towards the *Course List 1* requirements.
4. Nine units from the following list are required: ARTSSCI 3A06, 3B03, 3BB3, 3RL3/3S03. Students who choose to take ARTSSCI 3RL3 or 3S03 may only use one of those courses towards satisfying 3 units of the requirement. Students are encouraged, however, to take additional units from this list as an elective.
5. Nine units of Upper-Level Inquiry beyond Level I are required. Additional units of Upper-Level Inquiry may be included as an elective with the permission of the Director. Upper-Level Inquiry courses are: ARTSSCI 3CL3, 3CU3, 3EH3, 3GJ3, 3TR3, 4CB3, 4CD3, 4CF3, 4CI3, 4CP3, 4CT3, 4EP3, 4HS3, 4ST3, 4VC3.
6. Students who select BIOLOGY 4C12 will take three additional units from *Course List 1*; students who select ARTSSCI 4A06, 4C06, or BIOLOGY 4F06 will take nine additional units from *Course List 1*.

### COURSE LIST 1

BIOLOGY 2A03, 2B03, 2D03, 2EE3, 2F03, 2L03, all Biology and Molecular Biology Level III and IV courses; all BIOCHEM courses for which the prerequisites are met; CHEMBIO 2A03, 2P03, 3OA3, 3BM3, 4OA3, 4OB3; EARTHSC 2E03, 4FF3; ENVIRSC 2B03, 2C03, 2W03, 3B03, 4BB3, 4C03, 4EA3; GEOG 2E13, 2GI3, 3GI3, 3MB3, 4GA3; HTHSCI 3I03, 3K03, 4II3; LIFESCI 2D03, 3AA3, 3K03; MEDPHYS 4B03, 4U03; BIOPHYS 3D03, 3G03; PSYCH 2E03, 2GG3, 2NF3, 3A03, 3F03, 3FA3, 3SN3, 3T03, 4R03, 4Y03

### REQUIREMENTS

*120 units total (Levels I-IV), of which 48 units may be Level I*

24 units ARTSSCI 1A06, 1B03, 1BB3, 1C03, 1CC3, 1D06

12 units BIOLOGY 1A03, 1M03, CHEM 1A03, 1AA3

18 units ARTSSCI 2A06, 2D06, 2E03, 2R03

9 units from ARTSSCI 3A06, 3B03, 3BB3, one of 3RL3/3S03 (see *Note 4*)

9 units Upper-Level Inquiry (see *Note 5*)

6-12 units: one of ARTSSCI 4A06, 4C06, BIOLOGY 4F06 or BIOLOGY 4C12 (see *Note 6*)

3 units BIOLOGY 2C03

9 units from BIOLOGY 2A03, 2B03, 2D03, 2EE3, 2F03 (see *Note 3*)

3 units from CHEM 2E03, 2OA3, 2OC3, 2OG3

3-9 units from *Course List 1* (see *Note 6*)

12 units Levels III, IV from *Course List 1*

6 units Electives

*See page two for course titles*

Prefix	Course List 1
<b>BIOLOGY</b>	<b>*All Level 3 + Level 4 Biology/Molecular Biology Courses*</b> <b>2D03</b> - Plant Biodiversity and Biotechnology <b>2EE3</b> - Introduction to Microbiology and Biotechnology <b>2A03</b> - Integrative Physiology of Animals <b>2F03</b> - Fundamental and Applied Ecology <b>2B03</b> - Cell Biology <b>2L03</b> - Experimental Design in Biology
<b>CHEMBIO</b>	<b>2A03</b> – Introduction to Bio-Analytical Chemistry <b>3BM3</b> – Implanted Biomaterials <b>2P03</b> – Physical Chemistry Tools for Chemical Biology <b>4OA3</b> – Natural Products <b>3OA3</b> – Organic Mechanistic Tools for Chemical Biology <b>4OB3</b> – Medicinal Chemistry: Drug Design and Development
<b>EARTHSC</b>	<b>2E03</b> – Earth History <b>4FF3</b> – Topics of Field Research
<b>ENVIRSC</b>	<b>2B03</b> – Soils and the Environment <b>4C03</b> - Advanced Physical Climatology <b>2C03</b> - Surface Climate Processes and Environmental Interactions <b>4EA3</b> - Environmental Assessment <b>2W03</b> - Physical Hydrology <b>4BB3</b> – Field Techniques in Hydrology <b>3B03</b> – Ecosystems and Global Change
<b>GEOG</b>	<b>2E13</b> – Environmental Issues <b>3MB3</b> - Data Analysis <b>2G13</b> – Geographic Information Systems <b>4GA3</b> - Applied Spatial Statistics <b>3G13</b> - Advanced Raster GIS
<b>HTHSCI</b>	<b>3K03</b> - Introductory Virology <b>3I03</b> - Introductory Immunology <b>4I13</b> - Advanced Concepts in Immunology
<b>LIFESCI</b>	<b>2D03</b> - Behavioural Processes <b>3AA3</b> - Human Pathophysiology <b>3K03</b> - Neural Control of Human Movement
<b>BIOPHYS</b>	<b>3D03</b> - Origin of Life <b>3G03</b> - Modelling Life
<b>MEDPHYS</b>	<b>4B03</b> - Radioactivity and Radiation Interactions <b>4U03</b> - Radiation Biology
<b>PSYCH</b>	<b>2E03</b> - Sensory Processes <b>3FA3</b> - The Neurobiology of Learning and Memory <b>2GG3</b> - Learning, Measuring, and Shaping Behaviour <b>3T03</b> - Behavioural Ecology <b>2NF3</b> - Basic & Clinical Neuroscience <b>4R03</b> - Special Topics in Animal Behaviour <b>3A03</b> - Audition <b>4Y03</b> - Hormones, Neurochemistry and Behaviour <b>3F03</b> - Evolution and Human Behaviour

Other Listed Requirements
<b>BIOLOGY 1A03</b> – Cellular and Molecular Biology <b>1M03</b> - Biodiversity, Evolution and Humanity <b>2C03</b> - Genetics <b>4F06</b> - A/B S - Senior Project <b>4C12</b> - A/B S - Senior Thesis  <b>CHEM 1A03</b> - Introductory Chemistry I <b>1AA3</b> - Introductory Chemistry II <b>2E03</b> -Introductory Organic Chemistry <b>2OA3</b> - Organic Chemistry I <b>2OG3</b> - Structure and Reactivity of Organic Molecules