Honours Arts & Science and Molecular Biology & Genetics
ADMISSION
Enrolment in this program is limited.
Completion of Arts & Science I with a grade point average of at least 6.0 and an average of at least 6.0 in BIOLOGY 1A03, 1M03.

NOTES:
1. Completion of CHEM 1A03, 1AA3 is required by the end of Level II.
2. 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.
3. 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, 4DS3, 4EP3, 4HS3, 4ST3, 4VC3.
4. Students who select MOLBIOL 4G12 will take three additional units from *Course List 1*; students who select ARTSSCI 4A06, 4C06 will take nine additional units from *Course List 1.*
5. Given course scheduling, this concentration may take five years to complete.

COURSE LIST 1
BIOCHEM 2B03, 2BB3, 2EE3, 3G03, 4E03; BIOLOGY 2A03, 2D03, 2F03, 2L03, 3FF3, 3PG3, 4EE3, 4PP3; BIOPHYS 2A03; CHEMBIO 2A03, 2P03; CHEMENG 3BK3,3BM3; HTHSCI 3I03, 3K03, 4II3; MOLBIOL 3A03, 3D03, 3I03, 3M03, 3V03, 3Y03, 4BB3, 4DD3, 4H03, 4K03, 4P03, 4RR3

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

24 units ARTSSCI 1A03, 1AA3, 1B03, 1BB3, 1C06, 1D06
6 units BIOLOGY 1A03, 1M03
6 units CHEM 1A03, 1AA3 (see *Note 1*)
18 units ARTSSCI 2A06, 2D06, 2E03, 2R03
9 units from ARTSSCI 3A06, 3B03, 3BB3, one of 3RL3/3S03 (see *Note 2)*
9 units Upper-Level Inquiry (see *Note* 3)
9 units BIOLOGY 2B03, 2EE3, MOLBIOL 2C03
6 units CHEM 2OA3, 2OB3
12 units BIOLOGY 3S03, MOLBIOL 3B03, 3II3, 3O03
3-9 units from *Course List 1* (see *Note 4*)
6-12 units: one of ARTSSCI 4A06, 4C06 or MOLBIOL 4G12 *(see Note 4)*
6 units Electives

See page two for course titles

Prefix	Course List 1	
BIOCHEM	**2B03-** Nucleic Acid Structure and Function	**2BB3-** Protein Structure and Enzyme Function
	2EE3- Metabolism and Physiological Chemistry	**3G03-** Proteins and Nucleic Acids
	4E03- Gene Regulation in Stem Cells and Development	
BIOLOGY	**2A03-** Integrative Physiology of Animals	**2D03-** Plant Biodiversity and Biotechnology
	2F03- Fundamental and Applied Ecology	**2L03-** Experimental Design in Biology
	3FF3- Evolution	**3PG3-** Population Genetics
	4EE3- Human Diversity and Human Nature	**4PP3-** Environmental Microbiology and Biotechnology
BIOPHYS	**2A03**- Biophysics of the Cell and Living Organisms	
CHEMBIO	**2A03-** Introduction to Bio-Analytical Chemistry	**2P03-** Physical Chemistry Tools for Chemical Biology
CHEMENG	**3BK3-** Bio-Reaction Engineering	**3BM3-** Bioseparations Engineering
HTHSCI	**3I03-** Introductory Immunology	**3K03-** Introductory Virology
	4II3- Advanced Concepts in Immunology	
MOLBIOL	**3A03-** Current Topics in Molecular Biology and Genetics	**3CC3-** Genomics and Systems Biology
	3D03- Experimental Approaches in Cell Biology	**3I03-** Independent Research Project
	3M03- Fundamental Concepts of Development	**3V03-** Techniques in Molecular Genetics
	3Y03- Plant Responses to the Environment	
	4BB3- Plant Metabolism and Molecular Biology	**4DD3-** Molecular Evolution
	4H03- Molecular Biology of Cancer	**4K03-** Research Advances in Biology of Aging
	4P03- Medical Microbiology	**4RR3-** Human Genetics

Other Listed Requirements	
BIOLOGY 1A03- Cellular and Molecular Biology	**1M03-** Biodiversity, Evolution and Humanity
2B03- Cell Biology	**2EE3-** Introduction to Microbiology and Biotechnology
3S03- An Introduction to Bioinformatics	
4F06- A/B S - Senior Project	
CHEM 1A03- Introductory Chemistry I	**1AA3-** Introductory Chemistry II
2OA3- Organic Chemistry I	**2OB3-** Organic Chemistry II
MOLBIOL 2C03- Genetics	**3B03-** Advanced Cell Biology
3II3- Molecular Genetics of Eukaryotes	**3O03-** Microbial Genetics
4G12- Senior Thesis	