



<p>1.0 Degree Title Specify the two degrees for concurrent degree programs</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">BSc</div> <p>1.1 Major (Legacy= Subject) (30-char. max.)</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">Biology and Mathematics</div> <p>1.2 Concentration (Legacy = Concentration/Option) If applicable (30 char. max.)</p> <div style="border: 1px solid black; height: 20px; margin-bottom: 10px;"></div> <p>1.3 Minor (with Concentration, if applicable) (30 char. max.)</p> <div style="border: 1px solid black; height: 20px; margin-bottom: 10px;"></div> <p>1.4 Category</p> <table style="width: 100%; border: none;"> <tr> <td><input checked="" type="checkbox"/> Faculty Program (FP)</td> <td><input type="checkbox"/> Honours (HON)</td> </tr> <tr> <td><input type="checkbox"/> Major</td> <td><input type="checkbox"/> Joint Honours Component (HC)</td> </tr> <tr> <td><input type="checkbox"/> Joint Major</td> <td><input type="checkbox"/> Internship/Co-op</td> </tr> <tr> <td><input type="checkbox"/> Major Concentration (CON)</td> <td><input type="checkbox"/> Thesis (T)</td> </tr> <tr> <td><input type="checkbox"/> Minor</td> <td><input type="checkbox"/> Non-Thesis (N)</td> </tr> <tr> <td><input type="checkbox"/> Minor Concentration (CON)</td> <td><input type="checkbox"/> Other</td> </tr> </table> <p style="margin-left: 20px;">Please specify</p> <div style="border: 1px solid black; width: 150px; height: 20px; margin-left: 20px; margin-bottom: 10px;"></div> <p>1.5 Complete Program Title</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">B.Sc.; Faculty Program in Biology & Mathematics</div>	<input checked="" type="checkbox"/> Faculty Program (FP)	<input type="checkbox"/> Honours (HON)	<input type="checkbox"/> Major	<input type="checkbox"/> Joint Honours Component (HC)	<input type="checkbox"/> Joint Major	<input type="checkbox"/> Internship/Co-op	<input type="checkbox"/> Major Concentration (CON)	<input type="checkbox"/> Thesis (T)	<input type="checkbox"/> Minor	<input type="checkbox"/> Non-Thesis (N)	<input type="checkbox"/> Minor Concentration (CON)	<input type="checkbox"/> Other	<p>2.0 Administering Faculty/Unit</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">SCIENCE</div> <p>Offering Faculty/Department</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">BIOLOGY</div> <p>3.0 Effective Term of revision or retirement Please give reasons in 8.0 "Rationale" in the case of retirement (Ex. Sept. 2004 = 200409)</p> <p>Term</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 10px;">200501</div> <p>4.0 Existing Credit Weight Proposed Credit Weight</p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px; width: 150px; margin-bottom: 10px;">57</div> <div style="border: 1px solid black; width: 150px; height: 20px; margin-bottom: 10px;"></div> </div> <p>5.0 Description (Maximum 150 words)</p> <div style="border: 1px solid black; height: 150px; margin-bottom: 10px;"></div>
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6.0 List of existing program and proposed program	
<p>Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)</p> <div style="border: 1px solid black; height: 250px; margin-top: 10px;"></div>	<p>Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)</p> <div style="border: 1px solid black; height: 250px; margin-top: 10px;"></div>

6.0 (Continued) List of existing program and proposed program

Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

FACULTY PROGRAM IN BIOLOGY AND MATHEMATICS

(57 credits)

Required Courses

(21 credits)

COMP 202	(3)	Introduction to Computing 1
MATH 133	(3)	Vectors, Matrices and Geometry
MATH 222	(3)	Calculus 3
MATH 223	(3)	Linear Algebra
MATH 315	(3)	Ordinary Differential Equations
MATH 323	(3)	Probability Theory
MATH 324	(3)	Statistics

Complementary Courses

(36 credits)

21 credits in Biological Sciences including

12 credits selected from:

BIOL 200	(3)	Molecular Biology
BIOL 201	(3)	Cell Biology and Metabolism
BIOL 202	(3)	Basic Genetics
BIOL 205	(3)	Biology of Organisms
BIOL 206	(3)	Methods in Biology of Organisms
BIOL 215	(3)	Introduction to Ecology and Evolution
PHGY 209	(3)	Mammalian Physiology 1
PHGY 210	(3)	Mammalian Physiology 2

and 9 credits selected from:

BIOL 303	(3)	Developmental Biology
BIOL 306	(3)	Neurobiology and Behaviour
BIOL 307	(3)	Behavioural Ecology/Sociobiology
BIOL 324	(3)	Ecological Genetics
BIOL 370	(3)	Human Genetics Applied
BIOL 473	(3)	Ecology of Aquatic Invertebrates
BIOL 520	(3)	Gene Activity in Development
BIOL 530	(3)	Neural Basis of Behaviour
BIOL 531	(3)	Neurobiology Learning Memory

6 credits of any other Biological Sciences courses

9 credits of Mathematics

including at least 3 credits selected from:

BIOL 309	(3)	Mathematical Models in Biology
MATH 437	(3)	Mathematical Methods in Biology
PHYS 413	(3)	Physical Basis of Physiology

and at least 3 credits selected from:

MATH 314	(3)	Advanced Calculus
MATH 317	(3)	Numerical Analysis
MATH 319	(3)	Partial Differential Equations
MATH 327	(3)	Matrix Numerical Analysis
MATH 407	(3)	Dynamic Programming
MATH 423	(3)	Regression and Analysis of Variance
MATH 447	(3)	Stochastic Processes

or other suitable mathematics courses chosen in consultation with the adviser.

Advisers: Drs. M. Mackey and L. Glass (Department of Physiology)

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BIOL 306	(3)	Neurobiology and Behaviour
BIOL 307	(3)	Behavioural Ecology/Sociobiology
<u>BIOL 308</u>	<u>(3)</u>	<u>Ecological Dynamics</u>
BIOL 324	(3)	Ecological Genetics
BIOL 370	(3)	Human Genetics Applied
BIOL 473	(3)	Ecology of Aquatic Invertebrates
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7.0 Consultation with
Related Units

Yes No

Financial Consult Yes No

Attach list of consultations.

8.0 Rationale

BIOL 308 and BIOL 304 were added to the list of optional concentration courses. These are both courses that ought to have been offered in this program.

9.0 Approvals

Routing Sequence	Name	Signature	Date
Department	P LASKO		
Curric/Acad Committee			
Faculty 1			
Faculty 2			
Faculty 3			
SCTP			
GS			
APPC			
Senate			

Submitted by

Name
Phone
Email
Submission Date

To be completed by ARR:

CIP Code