



<p><b>1.0 Degree Title</b> Specify the two degrees for concurrent degree programs</p> <p>1.1 <input style="width: 80%;" type="text" value="B.Sc."/></p> <p>1.2 Concentration (Legacy = Concentration/Option) If applicable (30 char. max.) <input style="width: 80%;" type="text" value="Biochemistry"/></p> <p>1.3 Minor (with Concentration, if applicable) (30 char. max.)</p> <p>1.4 Category</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Faculty Program (FP)</td> <td style="width: 50%; border: none;">Honours (HON)</td> </tr> <tr> <td style="border: none;">Major</td> <td style="border: none;">Joint Honours</td> </tr> <tr> <td style="border: none;">Joint Major</td> <td style="border: none;">Component (HC)</td> </tr> <tr> <td style="border: none;">Major Concentration (CON)</td> <td style="border: none;">Internship/Co-op</td> </tr> <tr> <td style="border: none;">Minor</td> <td style="border: none;">Thesis (T)</td> </tr> <tr> <td style="border: none;">Minor Concentration (CON)</td> <td style="border: none;">Non-Thesis (N)</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;">Other</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;">Please specify</td> </tr> </table> <p>1.5 <input style="width: 80%;" type="text" value="B.Sc. (Honours) in Biochemistry"/></p>	Faculty Program (FP)	Honours (HON)	Major	Joint Honours	Joint Major	Component (HC)	Major Concentration (CON)	Internship/Co-op	Minor	Thesis (T)	Minor Concentration (CON)	Non-Thesis (N)		Other		Please specify	<p><b>2.0 Administering Faculty/Unit</b> <input style="width: 80%;" type="text" value="Science"/></p> <p><b>Offering Faculty/Department</b> <input style="width: 80%;" type="text" value="Medicine/Biochemistry"/></p> <p><b>3.0 Effective Term of revision or retirement</b> Please give reasons in 5.0 "Rationale" in the case of retirement (Ex. Sept. 2004 = 200409)      Retirement</p> <p>Term: <input style="width: 80%;" type="text" value="Sept. 2010"/></p> <p><b>4.0 Existing Credit Weight</b>      <b>Proposed Credit Weight</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: 1px solid black; text-align: center;">75 credits</td> <td style="width: 50%; border: 1px solid black; text-align: center;">76 credits</td> </tr> </table> <p><b>5.0 Rationale for revised program</b></p> <div style="border: 1px solid black; padding: 5px;"> <p>As requested by the Faculty of Science, we are adding CHEM 212 (Organic Chemistry 1) as a requirement in our Majors and Honours programs. In order to avoid increasing substantially the overall number of credits for required and Complementary courses, we are eliminating 3 credits of Complementary course credits in U2. We are also moving one set of Complementary courses (3 credits) from U1 to U2 to accommodate the addition of CHEM 212 to U1.</p> <p>As further housekeeping changes, we are (a) removing BIOC 460 (which is no longer offered) from these programs and (b) removing from the U3 Complementary course list a few courses that students will not be able to take (along with their required prerequisites) within the now-reduced total of Complementary course credits.</p> <p style="text-align: right;"><input type="checkbox"/></p> </div>	75 credits	76 credits
Faculty Program (FP)	Honours (HON)																		
Major	Joint Honours																		
Joint Major	Component (HC)																		
Major Concentration (CON)	Internship/Co-op																		
Minor	Thesis (T)																		
Minor Concentration (CON)	Non-Thesis (N)																		
	Other																		
	Please specify																		
75 credits	76 credits																		

**6.0 Revised Program Description (Maximum 150 words)**

<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
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## 7.0 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)

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

### CURRENT HONOURS PROGRAM (75 CREDITS)

U1 Year (28 credits)

U1 Required Courses (19 credits)

BIOC 212	Molecular Mechanism of Cell Function	3
BIOL 200	Molecular Biology	3
BIOL 202	Basic Genetics	3
CHEM 204	Physical Chem./Biological Sc. 1	3
CHEM 222	Intro. Organic Chemistry 2	4*
CHEM 287	Intro Analytical Chemistry	2
CHEM 297	Intro Analytical Chemistry Lab	1

\*Students with CEGEP-level credit for the equivalent of CHEM 222 (see [www.mcgill.ca/student-records/transfercredits](http://www.mcgill.ca/student-records/transfercredits) for accepted equivalents) may not take this course at McGill and should replace it with elective courses to satisfy the total credit requirement for their degree.

U1 Complementary Courses (9 credits)

6 credits selected from:

BIOL 205	Biology of Organisms	3
MIMM 211	Introductory Microbiology	3
PHGY 209	Mammalian Physiology 1	3
PHGY 210	Mammalian Physiology 2	3

plus 3 credits selected from:

BIOL 309	Math. Models in Biology	3
BIOL 373	Biometry	3
COMP 202	Introduction to Computing 1	3
MATH 203	Principles of Statistics 1	3
MATH 222	Calculus 3	3
PSYC 204	Intro. to Psychological Stats.	3

U2 Year (26 credits)

U2 Required Courses (23 credits)

ANAT 262	Intro. Molecular & Cell Biology	3
BIOC 300D1/D2	Laboratory in Biochemistry	6
BIOC 311	Metabolic Biochemistry	3
BIOC 312	Biochemistry of Macromolecules	3
CHEM 214	Physical Chem./Biological Sc. 2	3
CHEM 302	Intro. Organic Chemistry 3	3
CHEM 362	Advanced Organic Chem. Lab	2

U2 Complementary Courses (3 credits)

3 credits selected from:

BIOL 303	Developmental Biology	3
BIOL 313	Eukaryotic Cell Biology	3
CHEM 352	Structural Organic Chemistry	3
CHEM 382	Organic Chem.: Natural Products	3
MIMM 314	Immunology	3

U3 Year (21 credits)

U3 Required Courses (15 credits)

BIOC 404	Biophysical Chemistry	3
BIOC 450	Protein Structure & Function	3
BIOC 454	Nucleic Acids	3
BIOC 460	Advanced Lab in Biochemistry	6
or		
BIOC 462	Research Laboratory in Biochemistry	6

U3 Complementary Courses (6 credits)

At least 3 credits selected from:

BIOC 455	Neurochemistry	3
BIOC 458	Membranes & Cellular Signaling	3
BIOC 491	Independent Research	6
BIOC 503	Immunochemistry	3

The remainder, if any, selected from the following list:

BIOL 300	Molecular Biol. of the Gene	3
BIOL 303	Developmental Biology	3
BIOL 304	Evolution	3
BIOL 313	Eukaryotic Cell Biology	3
BIOL 314	Molecular Biology of Oncogenes	3
CHEM 352	Structural Organic Chemistry	3
CHEM 382	Organic Chem.: Nat. Products	3
CHEM 502	Advanced Bio-organic Chemistry	3
CHEM 552	Physical Organic Chemistry	3
CHEM 572	Synthetic Organic Chemistry	3
EXMD 502	Advanced Endocrinology 01	3
EXMD 503	Advanced Endocrinology 02	3
MIMM 314	Immunology	3
MIMM 324	Fundamental Virology	3
PHAR 300	Drug Action	3
PHAR 301	Drugs and Disease	3
PHGY 311	Channels, Synapses & Hormones	3
PHGY 312	Respiratory, Renal & Cardiovascular Physiology	3

### REVISED HONOURS PROGRAM (76 CREDITS)

U1 Year (29 credits)

U1 Required Courses (23 credits)

BIOC 212	Molecular Mechanism of Cell Function	3
BIOL 200	Molecular Biology	3
BIOL 202	Basic Genetics	3
CHEM 204	Physical Chem./Biological Sc. 1	3
CHEM 212	Intro. Organic Chemistry 1	4*
CHEM 222	Intro. Organic Chemistry 2	4*
CHEM 287	Intro Analytical Chemistry	2
CHEM 297	Intro Analytical Chemistry Lab	1

\*Students with CEGEP-level credit for the equivalents of CHEM 212 and/or CHEM 222 (see [www.mcgill.ca/student-records/transfercredits](http://www.mcgill.ca/student-records/transfercredits) for accepted equivalents) may not take these courses at McGill and should replace them with elective courses to satisfy the total credit requirement for their degree.

U1 Complementary Courses (6 credits)

6 credits selected from:

BIOL 205	Biology of Organisms	3
MIMM 211	Introductory Microbiology	3
PHGY 209	Mammalian Physiology 1	3
PHGY 210	Mammalian Physiology 2	3

U2 Year (26 credits)

U2 Required Courses (23 credits)

ANAT 262	Intro. Molecular & Cell Biology	3
BIOC 300D1/D2	Laboratory in Biochemistry	6
BIOC 311	Metabolic Biochemistry	3
BIOC 312	Biochemistry of Macromolecules	3
CHEM 214	Physical Chem./Biological Sc. 2	3
CHEM 302	Intro. Organic Chemistry 3	3
CHEM 362	Advanced Organic Chem. Lab	2

U2 Complementary Courses (3 credits)

3 credits selected from:

BIOL 309	Math. Models in Biology	3
BIOL 373	Biometry	3
COMP 202	Introduction to Computing 1	3
MATH 203	Principles of Statistics 1	3
MATH 222	Calculus 3	3
PSYC 204	Intro. to Psychological Stats.	3

U3 Year (21 credits)

U3 Required Courses (15 credits)

BIOC 404	Biophysical Chemistry	3
BIOC 450	Protein Structure & Function	3
BIOC 454	Nucleic Acids	3
BIOC 462	Research Laboratory in Biochemistry	6

U3 Complementary Courses (6 credits)

At least 3 credits selected from:

BIOC 455	Neurochemistry	3
BIOC 458	Membranes & Cellular Signaling	3
BIOC 491	Independent Research	6
BIOC 503	Immunochemistry	3

The remainder, if any, selected from the following list:

BIOL 300	Molecular Biol. of the Gene	3
BIOL 303	Developmental Biology	3
BIOL 304	Evolution	3
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CHEM 352	Structural Organic Chemistry	3
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CHEM 552	Physical Organic Chemistry	3
CHEM 572	Synthetic Organic Chemistry	3
EXMD 502	Advanced Endocrinology 01	3
MIMM 314	Immunology	3
MIMM 324	Fundamental Virology	3
PHAR 300	Drug Action	3
PHGY 311	Channels, Synapses & Hormones	3
EXMD 503	Advanced Endocrinology 02	3

Attach extra page(s) as needed

8.0 Consultation with  
Related Units

Yes  No

Financial Consult  Yes  No

Attach list of consultations

9. Approvals

Routing Sequence	Name	Signature	Date
Department	<input type="text"/>	<input type="text"/>	<input type="text"/>
Curric/Acad Committee	<input type="text"/>	<input type="text"/>	<input type="text"/>
Faculty 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
Faculty 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
Faculty 3	<input type="text"/>	<input type="text"/>	<input type="text"/>
SCTP	<input type="text"/>	<input type="text"/>	<input type="text"/>
GS	<input type="text"/>	<input type="text"/>	<input type="text"/>
APPC	<input type="text"/>	<input type="text"/>	<input type="text"/>
Senate	<input type="text"/>	<input type="text"/>	<input type="text"/>

Submitted by

Name   
Phone   
Email   
Submission Date

To be completed by ARR:

CIP Code