1.0 Degree Title  
Please specify the two degrees for concurrent degree programs  
B. Sc.  

1.1 Major (Legacy = Subject)(30-char. max.)  
Major in Pharmacology  

1.2 Concentration (Legacy = Concentration/Option)  
If applicable to Majors only (30 char. max.)  

1.3 Minor (with Concentration, if Applicable) (30 char. max.)  

2.0 Administering Faculty/Unit  
Science  

2.1 Offering Faculty/Department  
Medicine/Pharmacology & Therapeutics  

3.0 Effective Term of Implementation  
(Ex. Sept. 2004 = 200409)  
Term  
200709  

4.0 Rationale for new proposal  
This Majors Program in Pharmacology will provide a solid background in pharmacology and allied disciplines, serving as an excellent preparation for entering postgraduate studies in biomedical or environmental sciences or professional programs including medicine, dentistry, and veterinary sciences.  

5.0 Program Information  
Please check appropriate box(es)  

5.1 Program Type  
- Bachelor's Program  
- Master's  
- M.Sc. (Applied) Program  
- Dual Degree/Concurrent Program  
- Certificate  
- Diploma  
- Graduate Certificate  
- Graduate Diploma  
- Ph.D. Program  
- Doctorate Program  
- Private Program  
- Off-Campus Program  
- Distance Education Program (By Correspondence)  
- Other (Please specify)  

5.2 Category  
- Faculty Program (FP)  
- Major Program  
- Joint Major  
- Major Concentration (CON)  
- Minor  
- Minor Concentration (CON)  
- Honours (HON)  
- Joint Honours Component (HC)  
- Internship/Co-op  
- Thesis (T)  
- Non-Thesis (N)  
- Other  
- Please specify  

5.3 Level  
- Undergraduate  
- Dentistry/Law/Medicine  
- Continuing Ed (Non-Credit)  
- Collegial  
- Masters & Grad Dips & Certs  
- Doctorate  
- Post-Graduate Medicine/Dentistry  
- Graduate Qualifying  
- Postdoctoral Fellows  

6.0 Total Credits  
65  

7.0 Consultation with Related Units  
Yes ☑  No ☐  
Financial Consult  
Yes ☑  No ☐  
Attach list of consultations.
8.0 Program Description (Maximum 150 words)

The Major Program incorporates extensive studies in Pharmacology together with a strong component of related biomedical sciences, providing a solid preparation for employment opportunities or for entry into graduate or professional training programs. Students must consult an advisor upon entering the program and at the beginning of U2, to verify course selection and progress. Additional consultation at regular intervals is encouraged.

9.0 List of proposed program for the New Program/Major or Minor/Concentration.

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of all courses) of existing Major/Minor.

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

U1 Required Courses (19 credits):
- BIOL 200 (3) Molecular Biology
- CHEM 212* (4) Introductory Organic Chemistry 1
- CHEM 222 (4) Introductory Organic Chemistry 2
- PHGY 209 (3) Mammalian Physiology 1
- PHGY 210 (3) Mammalian Physiology 2
- PHGY 212 (1) Introductory Physiology Laboratory 1
- PHGY 213 (1) Introductory Physiology Laboratory 2

*Students with prior credit for CHEM 212 may take an elective in place of this course.

U2 Required Courses (19 credits):
- BIOC 311 (3) Metabolic Biochemistry
- BIOL 202 (3) Basic Genetics
- BIOL 301 (4) Cell and Molecular Laboratory
- PHAR 300 (3) Drug Action
- PHAR 301 (3) Drugs and Disease
- PHAR 303 (3) Principles of Toxicology

U3 Required Courses (12 credits):
- PHAR 503 (3) Drug Design and Development 1
- PHAR 562 (3) Advanced Pharmacology 1
- PHAR 563 (3) Advanced Pharmacology 2
- PHAR 558 (3) Pharmacology Research Topics

See next page for Complementary courses
### 10.0 Approvals

**Routing Sequence**

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<tr>
<td>Curric/Acad Committee</td>
<td>Dr. Hans Zinga</td>
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<td>November 22, 2006</td>
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**Submitted by**

- **Name**: Tina Tremblay
- **Phone**: 398-3623
- **Email**: Christina.tremblay@mcgill.ca
- **Submission Date**: November 22, 2006

**To be completed by ARR:**

- **CIP Code**: 
Complementary Courses
(15 credits)
3 credits selected from:
BIOL 201 (3) Cell Biology and Metabolism
BIOC 212 (3) Molecular Mechanisms of Cell Function

3 credits selected from:
CHEM 204 (3) Physical Chemistry/Biological Sciences 1
CHEM 203 (3) Survey of Physical Chemistry

3 credits selected from:
BIOL 373 (3) Biometry
MATH 203 (3) Principles of Statistics 1
PSYC 204 (3) Introduction to Psychological Statistics

6 credits selected from the following upper level science courses:
ANAT 321 (3) Circuitry of the Human Brain
ANAT 365 (3) Cell Biology: Secretory Processes
ANAT 458 (3) Membranes and Cellular Signaling
/ BIOC 458
BIOC 450 (3) Protein Structure and Function
BIOC 454 (3) Nucleic Acids
BIOC 455 (3) Neurochemistry
BIOL 300 (3) Molecular Biology of the Gene
BIOL 303 (3) Developmental Biology
BIOL 306 (3) Neurobiology and Behaviour
BIOL 314 (3) Molecular Biology of Oncogenes
BIOT 505 (3) Selected Topics in Biotechnology
CHEM 302 (3) Introductory Organic Chemistry 3
CHEM 502 (3) Advanced Bio-Organic Chemistry
CHEM 504* (3) Drug Design and Development 2
EXMD 504 (3) Biology of Cancer
EXMD 511 (3) Joint Venturing With Industry
MIMM 314 (3) Immunology
MIMM 387 (3) Applied Microbiology and Immunology
MIMM 414 (3) Advanced Immunology
NEUR 310 (3) Cellular Neurobiology
PATH 300 (3) Human Disease
PHAR 504* (3) Drug Design and Development 2
PHAR 599D1/D2 (6) Research Projects in Pharmacology
PHGY 311 (3) Intermediate Physiology 1
PHGY 312 (3) Intermediate Physiology 2
PHGY 313 (3) Intermediate Physiology 3
PHGY 314 (3) Integrative Neuroscience
PHGY 520 (3) Ion Channels
PSYC 311 (3) Human Cognition and the Brain
Committee approval is required to substitute an upper level science course not in the above list.

*Students may take either CHEM 504 or PHAR 504