The Honours Program is designed for students who are mainly interested in a research career, and are considering subsequent graduate studies in pharmacology. It provides an opportunity for hands-on research experience - the student becomes affiliated with one of our pharmacology research laboratories and will carry out and interpret experiments on a designated project, to develop a deeper understanding of the challenges and rewards of experimental research.
8.0 Program Description (Maximum 150 words)

The Honours Program in Pharmacology is designed as a preparation for graduate studies and research; in addition to the strong training provided by the Major Program, it provides students with direct research experience in a chosen area during their final year of study. Acceptance into the Honours Program takes place in the winter term of U2 and requires a CGPA of 3.30. Students who wish to enter the Honours program should follow the Major program; those who satisfactorily complete the first three terms with a CGPA of at least 3.30 and a mark of B or higher in core Pharmacology courses are eligible for admission. Applications can be obtained from the Office of the Department of Pharmacology in the McIntyre Medical Building or on the departmental website. For graduation in the Honours program, students must complete a minimum of 90 credits, pass all required Pharmacology courses with no grade less than B, and achieve a CGPA of at least 3.30. Students who do not maintain Honours standing may transfer their registration to the Major Program.

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

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 (18 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
PHAR 599 D1/D2 (6) Research Projects in Pharmacology

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

See next page for Complementary courses
### 10.0 Approvals

<table>
<thead>
<tr>
<th>Routing Sequence</th>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Dr. Hans Zinga</td>
<td></td>
<td>November 22, 2006</td>
</tr>
<tr>
<td>Curric/Acad Committee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCTP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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**:  

---

*New Program/Major or Minor/ Concentration Proposal Form P1-3*
Complementary Courses
(18 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

9 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
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