**New Program/Major or Minor/Concentration Proposal Form**

(07/2004)

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

| B. Sc. |

1.1 Major (Legacy = Subject)(30-char. max.)  
Core Science Component in Microbiology & Immunology  

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/Microbiology & Immunology  

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

4.0 Rationale for new proposal  
During the discussions in the program review of the Faculty, Major and Honours programs, two important themes are emerging:  
- replacing (improving) the Faculty program with a more general-purpose and more clearly defined B.Sc. Liberal degree  
- ensuring that all B.Sc. degrees have appropriate programs which have a core plus depth or a core plus breadth  
Our Majors and Honours programs already provide excellent programs with core plus depth, but we do not have an adequate program for core plus breadth. By replacing the Faculty programs with a new B.Sc. Liberal program, we can provide a very flexible system that provides core plus breadth in a systematic and modular way. Full description of the B.Sc. Liberal, please see Document AC-06-19.

5.0 Program Information  
Please check appropriate box(es)  

<table>
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<tr>
<th>5.1 Program Type</th>
<th>5.2 Category</th>
<th>5.3 Level</th>
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<td>Bachelor's Program</td>
<td>Faculty Program (FP)</td>
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<tr>
<td>Master's</td>
<td>Major</td>
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<td>M.Sc. (Applied) Program</td>
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<td>Continuing Ed (Non-Credit)</td>
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<td>Dual Degree/Concurrent Program</td>
<td>Major Concentration (CON)</td>
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<td>Certificate</td>
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<td>Masters &amp; Grad Dips &amp; Certs</td>
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<td>Diploma</td>
<td>Minor Concentration (CON)</td>
<td>Doctorate</td>
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<td>Honours (HON)</td>
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<td>Joint Honours Component (HC)</td>
<td>Graduate Qualifying</td>
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<td>Ph.D. Program</td>
<td>Internship/Co-op</td>
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<td>Distance Education Program (By Correspondence)</td>
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| Core Science Component |

6.0 Total Credits:  
48  

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

The program described below is the Core Science Component in Microbiology and Immunology for the B.Sc. Liberal.

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)

### Core Science Component in Microbiology and Immunology (48 credits)

**U1 Required Courses**

- BIOL 200 (3) Molecular Biology
- BIOL 201 (3) Cell Biology and Metabolism
- or BIOL 202 (3) Molecular Mechanisms of Cell Function
- BIOL 202 (3) Basic Genetics
- CHEM 212 (4) Introductory Organic Chemistry 1
- MIMM 211 (3) Introductory Microbiology
- MIMM 212 (2) Laboratory in Microbiology

**U1, U2 or U3 Required Course**

- BIOL 373 (3) Biometry
- or MATH 203 (3) Principles of Statistics 1
- or PSYC 204 (3) Introduction to Psychological Statistics

**U2 Required Courses**

- MIMM 314 (3) Immunology
- MIMM 323 (3) Microbial Physiology
- MIMM 324 (3) Fundamental Virology
- MIMM 386D1 (3) Laboratory in Microbiology and Immunology
- MIMM 386D2 (3) Laboratory in Microbiology and Immunology

**U3 Complementary Courses**

- 6 credits selected from:
  - MIMM 387 (3) Applied Microbiology and Immunology
  - MIMM 413 (3) Parasitology
  - MIMM 414 (3) Advanced Immunology
  - MIMM 465 (3) Bacterial Pathogenesis
  - MIMM 466 (3) Viral Pathogenesis
  - MIMM 509 (3) Inflammatory Processes

* Students who have taken CHEM 212 in CEGEP are exempt and must replace these credits with an elective course(s)

See attached page
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<th>Routing Sequence</th>
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Submitted by

Name
Phone
Email
Submission Date

To be completed by ARR:

CIP Code
Core Science Component in Microbiology and Immunology (Continued)

U1, U2 or U3 Complementary Courses
(6 credits)
6 credits selected from:
ANAT 261 (4) Introduction to Dynamic Histology
ANAT 262 (3) Introductory Molecular and Cell Biology
ANAT 365 (3) Cellular Trafficking
ANAT 458 (3) Membranes and Cellular Signalling
or BIOC 458 (3) Membranes and Cellular Signalling
BIOC 311 (3) Metabolic Biochemistry
BIOC 312 (3) Biochemistry of Macromolecules
BIOC 450 (3) Protein Structure and Function
BIOC 454 (3) Nucleic Acids
BIOL 300 (3) Molecular Biology of the Gene
BIOL 314 (3) Molecular Biology of Oncogenes
BIOT 505 (3) Selected Topics in Biotechnology
CHEM 203 (3) Survey of Physical Chemistry
or CHEM 204 (3) Physical Chemistry/Biological Sciences 1
*CHEM 222 (4) Introductory Organic Chemistry 2
CHEM 302 (3) Introductory Organic Chemistry 3
EXMD 504 (3) Biology of Cancer
MIMM 387 (3) Applied Microbiology and Immunology
MIMM 413 (3) Parasitology
MIMM 414 (3) Advanced Immunology
MIMM 465 (3) Bacterial Pathogenesis
MIMM 466 (3) Viral Pathogenesis
MIMM 509 (3) Inflammatory Processes
PATH 300 (3) Human Disease
PHAR 300 (3) Drug Action
PHAR 301 (3) Drugs and Diseases
PHGY 209 (3) Mammalian Physiology 1
(Class Schedule conflict with MIMM 324, if taken should be in U1 or U3)
PHGY 210 (3) Mammalian Physiology 2