# Infection, Immunity, and Inflammation--Curriculum

## Year 1

<table>
<thead>
<tr>
<th>Semester: Fall</th>
<th>Block</th>
<th>Course Details</th>
<th>Rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Register during Orientation)</td>
<td>Sep/Oct</td>
<td>Block 1</td>
<td>IBMS (2.5) Classic and 21st Century Pathogens (2) Critical Readings in I³ A (0.5)</td>
</tr>
<tr>
<td></td>
<td>Nov/Dec</td>
<td>Block 2</td>
<td>IBMS (cont) (2.5) Molecular and Cell. Immunology (2) Critical Readings in I³ B (0.5)</td>
</tr>
<tr>
<td>(Register in November)</td>
<td>Jan/Feb</td>
<td>Block 3</td>
<td>Molecular and Cell. Immunology (cont) (1) Elective</td>
</tr>
<tr>
<td></td>
<td>Mar/Apr</td>
<td>Block 4</td>
<td>Advanced Concepts in I³ A (2) Elective</td>
</tr>
<tr>
<td></td>
<td>May/Jun</td>
<td>Block 5</td>
<td>Advanced Concepts in I³ B (2) Respons. Conduct Research (“Ethics”) (1) Elective</td>
</tr>
<tr>
<td></td>
<td>Jul/Aug</td>
<td>Block 6</td>
<td>Initiate Research with Mentor (use 4th rotation course number)</td>
</tr>
</tbody>
</table>

## Year 2

<table>
<thead>
<tr>
<th>Semester: Fall</th>
<th>Block</th>
<th>Course Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Register in July)</td>
<td>Sep/Oct</td>
<td>Block 7</td>
<td>Research Design and Statistics (2) Professional Skills I  (1) Research (2) Elective</td>
</tr>
<tr>
<td></td>
<td>Nov/Dec</td>
<td>Block 8</td>
<td>Grantsmanship Skills (2) Research (2) Elective</td>
</tr>
<tr>
<td>(Register in November)</td>
<td>Jan/Feb</td>
<td>Block 9</td>
<td>Grantsmanship Skills (cont) Research (2) Elective</td>
</tr>
<tr>
<td></td>
<td>Mar/Apr</td>
<td>Block 10</td>
<td>Candidacy Exam</td>
</tr>
</tbody>
</table>

**Core Courses** are indicated by bold, blue lettering; require grade point average of 3.0 or above. All other required courses are indicated by bold, black lettering.

November 2022
Infection, Immunity, and Inflammation--Curriculum

41 Total Credits required to take the Candidacy exam = 9 core credits + 12 required credits + 6 Rotation credits + 6 Research credits + 8 elective credits (see below)

Elective courses. Each student must choose 8 credits from the courses listed below. At least 1 credit must come from Critical Readings in I^3 (at least 2 courses), and at least 2 credits must come from Advanced Microbiology Courses (at least 1 course). Electives include courses required for completing the Subdiscipline in Neuroimmunology.

Only 1 “applied” course (indicated by an asterisk) will count toward the credit requirement. Note: on the face page, blocks that include “Elective” are suggested for scheduling convenience; electives are not required in every block.

I. Critical Readings in I^3 C and D (pick at least 2-offering varies by year):

- TIII 5055Q Sec1 Critical Readings in the Chemical Biology of Bacterial Pathogens
- TIII 5055Q Sec2 Critical Readings in Antigenic Variation and Drug Resistance in Infectious Diseases
- TIII 5055Q Sec3 Critical Readings in Parasitology
- TIII 5055Q Sec4 Critical Readings in Tuberculosis
- TIII 5055Q Sec5 Critical Readings in Immunologic Genomics

II. Advanced Microbiology Electives (pick at least 1):

- MBGC 5055Q Molecular Genetics of Model Organisms
- TIII 5021Q Molecular Pathogenesis of Bacteria
- BIOC 5125Q Viruses, Cells, and Disease

III. “At Large” electives:

- CBMM 5002Q Practical Approaches for Studying Protein Function*
- CBMM 5020 Developmental Biology and Stem Cells
- CBMM 5070Q Histology Techniques*
- CBMM 5350Q Molecular Medicine of the Heart
- CBMM N5001 Basic Histology*
- CBNP 5033Q Systems Neuroscience
- CBNP 5034Q Biology of Vascular Disease
- CBNP 5036Q Molecular Physiology of Cell Communication
- CBNP 5037Q Regenerative Medicine
- CBNP 5068Q Molecular Mechanisms of Disease
- CBNP 5140Q Topics in Neuroimmunology
- CBNP 5150Q Cellular and Developmental Neuroscience
- CBNP 5160Q Human Stem Cell Differentiation
- CBNP 5255Q Endocrinology of Growth and Metabolism
- CBNP 5265Q Heart Function and Pathophysiology
- DENT 5145Q Introduction to Structural Biology
- DENT 5220Q Methods in Microscopic Imaging*
- GSND 5215Q Animal Models of Human Disease*
- GSND 5235Q Principles of Clinical & Translational Research in Oncology

November 2022