

# Immunology and Infection Major Requirements (81)

## Foundation Courses

- BIOL 107 - Introduction to Cell Biology
- BIOL 108 - Introduction to Biological Diversity
- CHEM 101 - Introductory University Chemistry I
- CHEM 102 - Introductory University Chemistry II
- MATH 134 - Calculus for the Life Sciences I (See Note 1)
- STAT 151 - Introduction to Applied Statistics I

## Senior Courses

- BIOCH 200 - Introductory Biochemistry
- BIOL 207 - Molecular Genetics and Heredity
- BIOL 208 - Principles of Ecology
- CHEM 261 - Organic Chemistry I
- CHEM 263 - Organic Chemistry II
- IMIN 200 - Infection and Immunity
- IMIN 324 - Basic Virology
- IMIN 371 - Introduction to Immunology
- IMIN 452 - Advanced Immunology
- MICRB 265 - General Microbiology
- MMI 351 - Bacterial Pathogenesis
- ZOOL 352 - Principles of Parasitism

### 3 units from:

BIOL 201 - Eukaryotic Cellular Biology  
 CELL 201 - Introduction to Molecular Cell Biology

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### 6 units from:

PHYSL 210 (6) - Human Physiology (takes up both lines)  
 or  
 PHYSL 212 - Human Physiology I AND  
 PHYSL 214 - Human Physiology II  
 or  
 ZOOL 241 - Animal Physiology I: Homeostasis AND  
 ZOOL 242 - Animal Physiology II: Intercellular Communication

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### 3 units from:

BIOCH 330 - Nucleic Acids and Molecular Biology (See Note 3)  
 GENET 270 - Foundations of Molecular Genetics (See Note 3)

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### 3 units from:

BIOCH 430 - Biochemistry of Eukaryotic Gene Expression (See Note 3)  
 GENET 304 - Gene Expression and its Regulation (See Notes 2 and 3)  
 MICRB 316 - Molecular Microbiology (See Notes 2 and 3)

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### 9 units from:

from I&I List A (see Note 5) see reverse

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### 3 units from:

from I&I List B (see Note 5) see reverse

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### Notes

1. MATH 134 is strongly recommended; however, it may be replaced with MATH 117, MATH 144, or MATH 154.
2. If GENET 304 or MICRB 316 is taken to satisfy this requirement, students must ensure at least 3 units from List A are at the 400-level.
3. GENET 270 is the prerequisite for GENET 304 and MICRB 316, while BIOCH 320 and BIOCH 330 are prerequisites for BIOCH 430.
4. Some courses appear on more than one list. Students may not use the same course to satisfy more than one list requirement.
5. At least 3 units selected from List A or B must be in a course with a lab component.
6. Students should consult the Department of Biological Sciences for advice about course selection throughout the program.

- COMM
- COMM
- IND
- BO\_\_
- BO\_\_
- BSBS
- BSFS
- BSSS
- LAB

### I&I List A:

#### **9 units from:**

- BIOCH 320 - Structure and Catalysis
- BIOCH 330 - Nucleic Acids and Molecular Biology
- BIOCH 430 - Biochemistry of Eukaryotic Gene Expression
- BIOL 391 - Techniques in Molecular Biology and Bioinformatics
- BIOL 409 - Zoonoses
- CELL 300 - Advanced Cell Biology I
- ENT 378 - Insect Pathology
- GENET 304 - Gene Expression and its Regulation
- IMIN 372 - Research Techniques in Immunology
- IMIN 401 - Comparative Immunology
- IMIN 405 - Innate Immunity
- IMIN 410 - Bioinformatics for Molecular Biologists
- IMIN 414 - Current Topics in Bacterial Pathogenesis
- MICRB 316 - Molecular Microbiology
- MMI 352 - Microbial Pathogenesis
- MMI 391 - Current Methods in Molecular Biology
- MMI 415 - Advanced Virology
- MMI 426 - Medical Parasitology
- MMI 436 - Inflammation
- MMI 445 - Clinical Microbiology and Human Health
- ZOOL 452 - Topics in Parasitology

### I&I List B:

#### **3 units from:**

- BIOCH 430 - Biochemistry of Eukaryotic Gene Expression
- BIOL 409 - Zoonoses
- IMIN 401 - Comparative Immunology
- IMIN 405 - Innate Immunity
- IMIN 410 - Bioinformatics for Molecular Biologists
- IMIN 414 - Current Topics in Bacterial Pathogenesis
- MMI 415 - Advanced Virology
- MMI 426 - Medical Parasitology
- MMI 436 - Inflammation
- MMI 445 - Clinical Microbiology and Human Health
- ZOOL 452 - Topics in Parasitology