

Infection, Immunity, and Inflammation (I³)--Curriculum

Year 1				
Fall Semester (Register during Orientation)	Sep/Oct	Block 1	IBMS-1 (2.5) Classic and 21st Century Pathogens (2) Critical Readings in I³ A (0.5)	1st Rotation Oct/Nov/Dec (2)
	Nov/Dec	Block 2	IBMS-2 (2.5) Mol. And Cell. Immunology A (2) Critical Readings in I³ B (0.5)	
Spring Semester (Register in November)	Jan/Feb	Block 3	Mol. and Cell. Immunology B (1) Crit. Readings in I³ C (Parasitology) (0.5) Elective	2nd Rotation Jan/Feb/Mar (2)
	Mar/Apr	Block 4	Advanced Concepts in I³ A (2) Elective	
	May/June	Block 5	Advanced Concepts in I³ B (2) Ethics (1) Elective	3rd Rotation Mar/Apr/May (2)
	Jul/Aug	Block 6	<i>Initiate Research with Mentor (no registration required)</i>	
Year 2				
Fall Semester (Register in July)	Sep/Oct	Block 7	Experimental Design and Statistics (2) Professional Skills I (1) Research (2) Elective	
	Nov/Dec	Block 8	Critical Readings D (0.5) Research (2) Elective	
Spring Semester (Register in November)	Jan/Feb	Block 9	Molecular Genetics of Model Organisms (2) Professional Skills—Grant Writing (2) Research (2) Elective	
	Mar/Apr	Block 10	<i>Candidacy Exam</i>	

I³ core courses are indicated by bold, blue lettering.

I³ required courses are indicated by bold, black lettering.

41 total credits required to take the candidacy exam = 14 core credits + 10 required credits + 6 rotation credits + 6 research credits + 5 elective credits (see below)

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Elective courses. Each student must choose 5 credits from the courses listed below. Only 1 “applied” course (indicated by an asterisk) and 1 1 credit course, will count toward the credit requirement. Note: there are more “elective” slots in the table than needed, to allow flexibility in scheduling.

BIOC 5003	Advances in Genomics, Proteomics, and Bioinformatics
BIOC 5125Q	Viruses, Cells, and Disease
CBMM 5020	Developmental Biology and Stem Cells
CBMM 5070Q	Histology Techniques*
CBMM 5350Q	Molecular Medicine of the Heart
CBMM N5001	Basic Histology*
CBNP 5034Q	Biology of Vascular Disease
CBNP 5036Q	Molecular Physiology of Cell Communication
CBNP 5068Q	Molecular Mechanisms of Disease
CBNP 5150Q	Cellular and Developmental Neuroscience
CBNP 5255Q	Endocrinology of Growth and Metabolism
CBNP 5265Q	Heart Function and Pathophysiology
DENT 5154Q	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
MBGC 5015Q	Cancer Biology: Extrinsic Factors in Cancer Progression
MBGC 5020Q	Cancer Biology: Intrinsic Cell Signaling and Cancer Development
MBGC 5030Q	Protein Dynamics in Health & Disease
MBGC 5070Q	Nucleic Acids: Mechanisms and Regulation of RNA Synthesis
MBGC 5071Q	Nucleic Acids: DNA Structure, Interactions, & Replication Strategies
MBGC 5075Q	Cell Death
MBGC 5220Q	Signaling Mechanisms in Biological Systems
MICR 5045Q	Human Genetics
MSBS 5125Q	Teacher Training Internship*
MSBS 5130Q	Stem Cell Biology & Applications in Molecular Medicine
MSBS 520AQ	Advanced Stem Cell Seminar
MSBS N512Q	Topics in Cancer Stem Cell Biology
MSBS N5134	Hematopoietic Stem Cell Biology and Dysfunction
NEUR 5200Q	Fundamentals of Neuroscience
NEUR 5240Q	Demyelinating Diseases
NEUR N5040	Neurobiology of Disease
PATH 5010Q	General Pathology
PATH 5100Q	Cellular Pathology
PATH N5209	The Business of Science: Drug Development – From Molecules to Medicine
PHMS 5025Q	Microbial Biofilms
PHPY 5020	Principles of Pharmacology
PHPY 5280	Gastrointestinal Physiology and Nutrition
PHPY N5021	Fundamentals of Pharmacology
PHPY N5225	Principles of Toxicology
TIII 5021Q	Molecular Pathogenesis of Bacteria