

# INFECTION, IMMUNITY AND INFLAMMATION – M.S., PH.D. COMPARISON

	Course Title	MS	PhD
<b>Basic science core</b>			
IBGS 501	Biomedical Communication and Integrity	2.0	2.0
IBGS 502	Biomedical Information and Statistics	2.0	2.0
IBGS 511	Cellular Mechanisms and Integrated Systems I	6.0	6.0
IBGS 512	Cellular Mechanisms and Integrated Systems II	6.0	6.0
IBGS 522	Cellular Mechanisms and Integrated Systems II Journal Club	2.0	2.0
IBGS 523	Cellular Mechanisms and Integrated Systems III Journal Club	2.0	2.0
IBGS 503	Biomedical Grant Writing		2.0
<b>Totals</b>		<b>20.0</b>	<b>22.0</b>

	Course Title	MS	PhD
<b>Seminars</b>			
IBGS 604	Introduction to Integrative Biology Presentation Seminar	1.0	1.0
IBGS 607	Integrated Biomedical Graduate Studies Seminar <sup>1</sup>	1.0	1.0
IBGS 605	Integrative Biology Presentation Seminar (1)	1.0	2.0
<b>Totals</b>		<b>2.0</b>	<b>3.0</b>

	Course Title	MS	PhD
<b>Religion</b>			
RELE 525	Ethics for Scientists		3.0
RELR 588	Personal and Family Wholeness		3.0
RELT 617	Seminar in Religion and the Sciences		3.0
REL_ ___	Graduate-level religion course (RELE, RELR, or RELT)	3.0	
<b>Totals</b>		<b>3.0</b>	<b>9.0</b>

	Course Title	MS	PhD
<b>Program specific courses</b>			
ANAT 548	Introductory Flow Cytometry <sup>3</sup>		
MICR 515	Introduction to Bioinformatics and Genomics		
MICR 521	Medical Microbiology <sup>2</sup>		
MICR 530	Immunology <sup>3</sup>		
MICR 540	Physiology and Molecular Genetics of Microbes <sup>2</sup>		
MICR 570	Mechanisms of Microbial Pathogenesis <sup>2</sup>		
MICR 624	Special Problems in Microbiology		
MICR 625	Independent Study in Microbiology Literature		

Choose from the above: 12.0

Choose from the above: 9.0

**Totals 9.0 12.0**

Course Title	MS	PhD
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**MS degree completion options**

Required: 11.0

Course work track:

Electives (choose 8 units from available electives listed below)

Research track:

MICR 697 Research

IBGS 698 Thesis

**Totals 11.0**

Course Title	MS	PhD
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**PhD research/dissertation**

IBGS 696 Research Rotations (1) 2.0

MICR 697 Research (1-7) 12.0

IBGS 699 Dissertation (1-5) 2.0

**Totals 16.0**

**Overall Totals 45.0 62.0**

<sup>1</sup> Registration and attendance required every quarter in residence, but units do not count toward total required for graduation.

<sup>2</sup> Must take at least 3 units of coursework with a clear microbiology focus.

<sup>3</sup> Must take at least 3 units with a clear immunology focus.