

# BIOMEDICAL SCIENCES, PHD WITH MICROBIOLOGY AND IMMUNOLOGY CONCENTRATION

The Department of Microbiology and Immunology offers a PhD track in Microbiology and Immunology (MIIM) within the Biomedical Sciences (BMS) Graduate Program. This program offers research-based graduate training that includes focused education in basic and medical Microbiology and Immunology, which is undoubtedly beneficial for students seeking professional careers in MIIM research, teaching, government, private industry, or similar fields.

## Requirements

Students who choose to earn a Concentration in Microbiology and Immunology will complete 27 credit hours of BMS core curriculum in their first year of study. In year 2, students will complete a minimum of 21 credit hours of Microbiology and Immunology-focused coursework.

Course ID	Title	Credits
<b>Year 1: Fall</b>		
BMSP 6070	Advanced Cell Biology	3
BMSP 7100	Biomed Sciences Workshop	1
BMSP 7120	Research Topics and Rotations	4
BMSP 7140	Biomedical Sci Seminar	1
GBCH 6010	Graduate Biochemistry	4
INTD 6010	Responsible Conduct of Research	0
<b>Credit Hours</b>		<b>13</b>
<b>Year 1: Spring</b>		
BMSP 7110	Workshop	1
BMSP 7130	Research Topics and Rotations	4
BMSP 7150	Seminar	1
BMSP 7770	Physiological Basis of Disease	3
or BIM1 7500	Genomic Sequence and Omics Data Analysis	
GBCH 7250	Biomedical Statistics and Data Analysis	2
EPID 7810	Human Molecular Genetics	3
<b>Credit Hours</b>		<b>14</b>
<b>Year 1: Summer</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 2: Fall</b>		
MIIM 7010	Microbiology/Immunology Seminar Series - Fall	1
MIIM 7500	Graduate Medical Microbiology	4
MIIM 7600	Medical Immunology	3
MIIM 7310	Research	1 to 3
<b>Elective Courses</b>		<b>0-5</b>
MIIM 7100	Clinical Cases and Their Underlying Mechanisms	2
MIIM 7150	At the Interface - Dynamics of Immunologic and Microbial Interactions	3
MIIM 7220	Advanced Research Methods/Data Mining	4
MIIM 7210	Research Methods	2
MIIM 7400	Responsible Conduct of Biomedical Research	2
<b>Credit Hours</b>		<b>9-16</b>
<b>Year 2: Spring</b>		
MIIM 7810	Microbiology/Immunology Seminar Series - Spring	1
MIIM 7320	Research	1-3
<b>Advanced Electives</b>		<b>3-6</b>
MIIM 7120	Advanced Virology	4
MIIM 7250	Vaccine Biology	3

MIIM 7620	Advanced Immunology	3
<b>Elective Courses</b>		<b>0-5</b>
MIIM 7100	Clinical Cases and Their Underlying Mechanisms	2
MIIM 7150	At the Interface - Dynamics of Immunologic and Microbial Interactions	3
MIIM 7210	Research Methods	2
MIIM 7220	Advanced Research Methods/Data Mining	4
MIIM 7400	Responsible Conduct of Biomedical Research	2
<b>Credit Hours</b>		<b>5-15</b>
<b>Year 2: Summer</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 3: Fall</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 3: Spring</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 3: Summer</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 4: Fall</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 4: Spring</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 4: Summer</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 5: Fall</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 5: Spring</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Year 5: Summer</b>		
BMSP 9990	Dissertation Research	0
<b>Credit Hours</b>		<b>0</b>
<b>Total Credit Hours</b>		<b>48-58</b>

Program String, Field of Study, and Concentration code: MDPHD\_GR, BMSP / MIIM

## Contact

For more information, contact the School of Medicine (<https://medicine.tulane.edu/bms/#contact-us>).