

Microbiology & Immunology, MS

The Master of Science in Microbiology & Immunology (<https://microbiology.georgetown.edu/academics/masters/microbiology-immunology/>) is a flexible program of study designed to help students achieve their individual educational goals and career objectives. The proximity of the Department of Microbiology & Immunology to the National Institutes of Health and other organizations provides our students a unique learning environment with rarely available insights into the national response to the emerging problems of infectious diseases. A broad range of course offerings from within the department and university allows the students to gain or enhance their background in microbiology, immunology, and various aspects of modern molecular genetics. Laboratory experience in specialized techniques is also available.

- Modality: On Campus
- Academic Policies and Procedures: BGE Handbook (https://docs.google.com/document/d/1rkaOm8U_1eVwabvKL_HFvpfSWrMGnrc6Ex41erxP7g/edit?usp=sharing)
- Contact the Program (<https://microbiology.georgetown.edu/contact-dept/#msmicb>)

This program is offered through Biomedical Graduate Education (BGE) (<https://biomedicalprograms.georgetown.edu/>) at Georgetown University School of Medicine.

Requirements

Students must complete 30 credits of coursework, including 18 credits of required courses and 12 credits of electives.

Electives are chosen from a broad range of the Medical Center department course offerings.

No Concentration Requirements

Code	Title	Credits
Required Courses		
MICB 6120	Immunology	3
MICB 6140	Bacteriology & Mycology	3
BCMC 5001	BIOCHEM & CELLULAR SCIENCES	3
BCHB 5760	Core Methods of Biochemistry	3
MICB 6190	Biology/Biochem of Viruses	3
MICB 6290	Mech of Microbial Pathogenesis	3
Elective Courses		12
MICB 6852	Sem: Microbiol/Immunology Fall	
MICB 7008	Immunogenetics in Health & Dis	
BHTA 6551	Biohaz Threat Agnts/Emer Inf D	
BHTA 6590	One Health and Health Security	
BHTA 7800	Globl Infectious Dis: Int Pers	
BCHB 5360	Cell Culture Appls: Biotech	
BCHB 5400	MOLECULAR BASIS:CARCINOGENESIS	
TBIO 6543	Clinical Survey of Human Cance	

TBIO 6584	Intro to Tumor Biology	
MICB 6220	1	
MICB 6600	Concepts of Immunotherapy	
MICB 6583		
MICB 7008	Immunogenetics in Health & Dis	
BHTA 6524	Emerging&Re-emerging Inf Disea	
BHTA 6577	Defnse Threat Reductn Initiatv	
BHTA 7801	Sem:Global Infectious Diseases	
BCHB 5360	Cell Culture Appls: Biotech	
BCHB 5400	MOLECULAR BASIS:CARCINOGENESIS	
BCMC 5390	MOLECULAR CELL BIOLOGY	
NURS 5520		
PHAR 6505	Advanced Topics in Nutrition	
TBIO 6584	Intro to Tumor Biology	
Total Credits		30

¹ Please note that for MICB 6220, students will be required to take the laboratory safety course (<https://ehs.georgetown.edu/training/>) before taking MICB 6220. Sign up for the laboratory safety course. (<https://docs.google.com/a/georgetown.edu/forms/d/e/1FAIpQLSdVLYbtI3w-Sig2ZuYEt3DUpISYCKNvIQuDkM1RGV4SpkBLgQ/viewform>)

Biomedical Science Policy & Advocacy Concentration Requirements

Code	Title	Credits
Required Courses		
MICB 6120	Immunology	3
MICB 6140	Bacteriology & Mycology	3
BCMC 5001	BIOCHEM & CELLULAR SCIENCES	3
BCHB 5760	Core Methods of Biochemistry	3
BSPA 6603	S&T in Global Arena	4
MICB 6190	Biology/Biochem of Viruses	3
MICB 6290	Mech of Microbial Pathogenesis	3
BSPA 7005	Science Diplomacy&World Health	2
BSPA 7907	Biomed SciPol Capstone Project	3
Elective Courses		3
MICB 6220	¹	
	or MICB 62:Adv Techniques in Microbiol I	
	or MICB 62:Adv Techniques in Microbiol I	
MICB 6852	Sem: Microbiol/Immunology Fall	
MICB 7008	Immunogenetics in Health & Dis	
BHTA 6551	Biohaz Threat Agnts/Emer Inf D	
BHTA 6590	One Health and Health Security	
BHTA 7800	Globl Infectious Dis: Int Pers	
BCHB 5360	Cell Culture Appls: Biotech	
BCHB 5400	MOLECULAR BASIS:CARCINOGENESIS	
TBIO 6543	Clinical Survey of Human Cance	
TBIO 6584	Intro to Tumor Biology	
MICB 6600	Concepts of Immunotherapy	
MICB 6853	Sem:Microbiol/Immunology Sprng	
MICB 7008	Immunogenetics in Health & Dis	

BHTA 6524	Emerging&Re-emerging Inf Disea	
BHTA 6577	Defnse Threat Reductn Initiatv	
BHTA 7801	Sem:Global Infectious Diseases	
BCHB 5360	Cell Culture Appls: Biotech	
BCHB 5400	MOLECULAR BASIS:CARCINOGENESIS	
BCMC 5390	MOLECULAR CELL BIOLOGY	
NURS 5520		
PHAR 6505	Advanced Topics in Nutrition	
TBIO 6584	Intro to Tumor Biology	
Total Credits		30

¹ Students will be required to take the laboratory safety course (<https://ehs.georgetown.edu/training/>) before taking MICB 6220 (Fall), MICB 6221 (Spring) or MICB 6222 (Summer Full Session). Sign up for the laboratory safety course. (<https://docs.google.com/a/georgetown.edu/forms/d/e/1FAIpQLSdVLYbtI3w-Sig2ZuYEt3DuplSYCKNvlQuDkM1RGV4SpkBLgQ/viewform>)

Related Programs

- Microbiology & Immunology, PHD (<http://coursecatalog.georgetown.edu/programs/microbiology-immunology-phd/>)