

# MICROBIOLOGY AND IMMUNOLOGY, MS

This one-year post-baccalaureate program leading to the degree of Master of Biomedical Science in Microbiology and Immunology has been designed to prepare students for careers in biomedical sciences and to provide an in-depth educational experience to improve the probability of gaining admission to a postgraduate professional school such as medical, dental, PA, veterinary schools or Ph.D. programs. Class size is limited to 20 students. All courses are taught within the Tulane School of Medicine by full-time faculty.

Upon graduation, students

- Should have developed core knowledge in Microbiology and Immunology, and the ability to apply their knowledge to problems in these and other disciplines. (*Disciplinary and interdisciplinary knowledge*)
- Should have developed the ability to perform basic work in a Microbiology or other research laboratory. (*Professional competencies*)
- Should have developed skills that transcend disciplines and are applicable in any context, such as communications, leadership, and working in teams. (*Foundational and transferrable skills*)
- Should have developed the ability to apply the scientific method, understand the application of statistical analysis, gain experience in conducting research and other field studies, learn about and understand the importance of research responsibility and integrity, and engage in work-based learning and research in a systematic manner. (*Research*)

## Requirements

### Degree Requirements (two tracks available) (<https://medicine.tulane.edu/microbiology-immunology/masters/>)

#### Thesis Track

- At least 27 credit hours of course work during Fall and Spring semesters plus 3 credits for thesis-relevant courses.
- Complete requirements for a thesis, based on **library** research (generate a review paper).
- At least a "B" average (3.0 GPA) has to be achieved in order to graduate.

#### Non-thesis track

- At least 30 credit hours of course work during Fall and Spring semesters.
- At least a "B" average (3.0 GPA) has to be achieved in order to graduate.

### Program Curriculum (<https://medicine.tulane.edu/microbiology-immunology/masters/>)

Students can take as many credits as desired from the courses offered with a minimum of 30 credits overall.

#### Required Courses (<https://medicine.tulane.edu/microbiology-immunology/masters/>)

##### Fall semester:

Course ID	Title	Credits
MIIM 7500	Graduate Medical Microbiology	4
MIIM 7600	Medical Immunology	3
MIIM 7550	Microbiology Laboratory	3
MIIM 7010	Microbiology/Immunology Seminar Series - Fall	1
MIIM 7020	Graduate Journal Club	1

##### Spring semester

Course ID	Title	Credits
MIIM 7400	Responsible Conduct of Biomedical Research	2
MIIM 7810	Microbiology/Immunology Seminar Series - Spring	1
MIIM 7030	Scientific Communication in Microbiology/Immunology	2

## Electives

*In addition to the required courses above, we offer several electives:*

### Fall Semester

Course ID	Title	Credits
MIIM 7210	Research Methods	2
MIIM 7720	Medical Mycology	3
MIIM 7050	Thesis Research Design	2
MIIM 7310	Research (register for 1 or 2 cr)	1 to 10
MIIM 9970	Master's Thesis (register for 1 cr)	1 or 2
GBCH 7500	Human Medical Cellular Biochemistry	5
GPSO 6010	Medical Physiology	6

### Spring Semester

Course ID	Title	Credits
MIIM 7750	Medical Parasitology	3
MIIM 7220	Advanced Research Methods/Data Mining	4
MIIM 7250	Vaccine Biology	3
MIIM 7620	Advanced Immunology (Biennial)	3
MIIM 7120	Advanced Virology	4
MIIM 7100	Clinical Cases and Their Underlying Mechanisms	2
MIIM 7065	Scientific Writing	2
MIIM 7150	At the Interface - Dynamics of Immunologic and Microbial Interactions (Biennial)	3
MIIM 9970	Master's Thesis (Register for 2 cr)	1 or 2
MIIM 7320	Research (Register for 1 or 2 cr)	1 to 10
GBCH 7520	Metabolic Biochemistry of Human Disease	5

**Program String & Field of Study:** MDMS\_GR, MIIM

## Contact

For more information, contact the School of Medicine (<https://medicine.tulane.edu/microbiology-immunology/masters/>).