MICROBIOLOGY, IMMUNOLOGY, AND TROPICAL MEDICINE (MICR)

Explanation of Course Numbers
- Courses in the 1000s are primarily introductory undergraduate courses
- Those in the 2000-4000s are upper-division undergraduate courses that can also be taken for graduate credit with permission and additional work
- Those in the 6000s and 8000s are for master’s, doctoral, and professional-level students
- The 6000s are open to advanced undergraduate students with approval of the instructor and the dean or advising office

MICR 6201. Medical Microbiology. 5 Credits.
Basic principles of medical microbiology (primarily bacteriology, virology, genetics, parasitology, and mycology), including microbial pathogenesis, and clinical infectious diseases. An interdisciplinary approach to the study of infectious organisms and associated diseases by combining aspects of fundamental microbiology, infectious disease, pharmacology, and pathology.

MICR 6202. Immunology. 2 Credits.
The structure and function of the immune system in health and disease, with emphasis on human immunobiology. Topics include humoral and cellular immune responses, immunological tolerance and memory, resistance to microbial pathogens, inflammation and alee.

MICR 6212. Pathogenic Bacteriology. 2 Credits.
Molecular basis of bacterial pathogens and host-pathogen interactions. Prerequisites: MICR 8210 or permission of instructor.

A comprehensive course examining the strategies parasites use to infect their hosts, how they survive and thrive within their host, and the developmental adaptations they use to ensure transmission of their offspring to the next host. Prerequisite: BISC 2339 or permission of instructor.

MICR 6228. Selected Topics-Microbiology. 2 Credits.

MICR 6229. Immunobiology of Infections. 2 Credits.

MICR 6233. Virology. 2 Credits.
Biochemical, genetic, and pathogenic characterization of viruses. Prerequisites: MICR 8210 or permission of instructor.

MICR 6234. Virology Laboratory. 2 Credits.

MICR 6235. Human and Transforming Viruses. 3 Credits.
Current concepts of transformation and disease caused by RNA and DNA viruses. Prerequisite: MICR 6233 or MICR 8210.

MICR 6236. Fdmlts/Geonomics&Proteomics I. 2-3 Credits.
Same as Bioc 6236.

MICR 6237. Fdmlts/Geonomics&ProteomicsII. 2 Credits.
Same as Bioc 6237.

MICR 6238. Public Health Laboratory Works. 2 Credits.

MICR 6241. Survey-Molecular Bio Technique. 3 Credits.

MICR 6250. Applied Bioinformatics. 2 Credits.
Bioinformatics tools available for DNA/RNA and protein sequence analysis, structural analysis, and data mining. Prerequisite: MICR 6236 or permission of instructor.

MICR 6258. Microbial Genetics. 2 Credits.

MICR 6277. Seminar: Microbiology. 1 Credit.

MICR 6278. Seminar: Microbiology. 1 Credit.

MICR 6283. Virology. 1-12 Credits.

MICR 6290. Extramural Microbiology Electve. 1-12 Credits.

MICR 6291. Extramural Microbiology Electve. 1-12 Credits.

MICR 6292. Tropical Infectious Diseases. 2 Credits.
Lecture course. Pathogenesis, natural history, and epidemiology of the major infectious diseases that occur in developing countries.

MICR 6293. Special Topics. 1-12 Credits.
Selected topics in microbiology. May be repeated for credit provided the topic differs.

MICR 6294. Research-Clinical Microbiology. 3 Credits.

MICR 6295. Research. 1-12 Credits.

MICR 8210. Infection and Immunity. 3 Credits.
An introduction to the fields of virology, bacteriology, and parasitology, as well as the main concepts of immune response.

MICR 8230. Molecular and Cellular Immunology. 3 Credits.
Major aspects of immunology, including T and B cell effector function, innate immune cell function, mucosal immunology, and immune regulation. Prerequisites: MICR 8210 or other similar introductory immunology course or with approval of staff.

MICR 8270. Advanced Topics in Immunology. 3 Credits.
Seminar series on topics chosen jointly by students and faculty; students present and critique original manuscripts. May be repeated for credit. Prerequisite: MICR 8210, MICR 8230, or approval of staff.

MICR 8998. Advanced Reading and Research. 1-12 Credits.
Limited to students preparing for the Doctor of Philosophy general examination. May be repeated for credit.

MICR 8999. Dissertation Research. 3-12 Credits.
Limited to Doctor of Philosophy candidates. May be repeated for credit.