The Department of Microbiology and Immunology is one of the basic science departments of the UNC School of Medicine. Although the department participates actively in the undergraduate curriculum in biology and several of its courses are open to undergraduate students, the department does not offer an undergraduate major in microbiology.

MCRO 251 Introductory Medical Microbiology is an undergraduate course, including both lecture and laboratory sessions, which is specifically designed to serve as the required prerequisite for students applying to physician assistant, pharmacy, or nursing programs, although other students with the required science background may take the course. The course is intended to provide historical, basic, and current information about the flow of genetic information from DNA to RNA in a variety of biological systems. Three lecture hours a week. Grading status: Letter grade.

MCRO 291. Undergraduate Learning Apprentice. 1 Credit. Permission required. Experience includes preparations, demonstrations, assistance, and attendance at weekly meetings. Apprentices will not be involved in any aspects of grading. Requisites: Prerequisite, MCRO 251; a grade of B or better in MCRO 251 is required. Repeat rules: May be repeated for credit. 3 total credits. 3 total completions. Grading status: Pass/Fail.

MCRO 292. Undergraduate Learning Assistant. 2 Credits. Permission required. Experience includes preparations, demonstrations, assistance, and attendance in weekly meetings. Requisites: Prerequisite, MCRO 251; a grade of B or better in MCRO 251 is required. Repeat rules: May be repeated for credit. 4 total credits. 2 total completions. Grading status: Pass/Fail.

Advanced Undergraduate and Graduate-level Courses

MCRO 449. Introduction to Immunology. 3 Credits. This course provides a general overview of the evolution, organization, and function of the immune system. Instruction will be inquiry-based with extensive use of informational and instructional technology tools. Requisites: Prerequisite, BIOL 205; permission of the instructor for students lacking the prerequisite. Grading status: Letter grade.

MCRO 449. Introduction to Immunology. 3 Credits. This course provides an introduction to the structure and function of the immune system. It covers topics such as the flow of genetic information from DNA to RNA in various biological systems. Three lecture hours a week. Grading status: Letter grade.

MCRO 630. Virology. 3 Credits. Required preparation for undergraduates, at least one undergraduate course in both biochemistry and genetics. Current concepts of the chemistry, structure, replication, genetics, and the natural history of animal viruses and their host cells. Grading status: Letter grade.

MCRO 631. Advanced Molecular Biology I. 3 Credits. Required preparation for undergraduates, at least one undergraduate course in both biochemistry and genetics. DNA structure, function, and interactions in prokaryotic and eukaryotic systems, including chromosome structure, replication, recombination, repair, and genome fluidity. Three lecture hours a week. Grading status: Letter grade.

MCRO 632. Advanced Molecular Biology II. 3 Credits. Required preparation for undergraduates, at least one undergraduate course in both biochemistry and genetics. The topic of this course is to provide historical, basic, and current information about the flow and regulation of genetic information from DNA to RNA in a variety of biological systems. Three lecture hours a week. Grading status: Letter grade.

MCRO 635. Microbial Pathogenesis I. 3 Credits. Permission of the instructor. Required preparation, coursework in molecular biology and genetics. Topics will include aspects of basic bacteriology as well as bacterial and fungal pathogens and mechanisms of disease. Grading status: Letter grade.

MCRO 640. Microbial Pathogenesis II. 3 Credits. Permission of the instructor or a fundamental understanding of molecular virology and immunology. Molecular pathogenesis, with a primary focus on viral pathogens. Additional topics include vaccines and genetics of host-pathogen interactions. Grading status: Letter grade.
MCRO 690. Special Topics in Microbiology or Immunology. 1-15 Credits.
Permission of the department except for department majors. Designed to
introduce the student to research methods. Minor investigative problems
are conducted with advice and guidance of the staff. Hours and credit to
be arranged, any term. May be repeated for credit two or more semesters.
Repeat rules: May be repeated for credit; may be repeated in the same
term for different topics; 15 total credits. 5 total completions.
Grading status: Letter grade.