Microbiology/Immunology -MD

MIC 400  Microbiology Externship  1 TO 4 cr
To be determined.

MIC 480  Molec Basis of Pathogenesis  1 TO 4 cr
Bench research on the biology or the Rickettsiales family
of intracellular pathogens and on the pathogenesis of
the diseases caused by these organisms. Participation in
ongoing research or initiation of new projects are possible.

MIC 530  Microbes & Host Defense  3 cr
Presents the fundamental aspects of microbiology including
morphology, metabolism of micro-organisms, the basic
principles of the use of antibiotics and chemotherapeutic
agents, microbial genetics, virology, and medical microbial
ecology. The principles of immunology and infection in
relation to clinical disease are discussed with special
emphasis on laboratory diagnosis.

MIC 536  Literature Reports  1 cr
Students and faculty participate in a supervised reading of
the current literature and meet periodically to interact in a
discussion of the selected article or topic. The goal of this
course is to maintain the faculty’s and students' level of
information at a "state of the art" in both methods and theory
in the discipline and to develop critical skills in reviewing the
literature.

MIC 537  Dir St - Microbiology  1 TO 6 cr
Students participate in research under the direction of a
graduate faculty member. This course should be taken by
students who have completed their lab rotations, but have
not yet submitted a formal research proposal.

MIC 590  Sp Top -  1 TO 3 cr
Each course provides in-depth tutorial exposure to specific
areas in the discipline. Student and/or faculty presentations
followed by group discussions, examine the subject matter
in an area of current interest either to one student or a group
of students. Credit and title are arranged with an individual
faculty member.

MIC 630  Adv Microbial Pathogenesis  3 cr
This course discusses the fundamentals of this area with
particular emphasis on Escherichia coli and Salmonella
typhimurium as model systems. The development of
problem solving skills will be stressed. Topics including
aerobic vs. anaerobic metabolism, membrane physiology,
biosynthesis of macromolecules and regulation of gene
expression provide view of microbial cell.
Pre-requisite: IDL 580 Minimum Grade of B and IDL 581
Minimum Grade of B.

MIC 632  Advanced Immunology  3 cr
Selected topics in immunology are considered using formal
lectures followed by student presentations. Design and
interpretation of immunological experiments are emphasized
throughout the course.
Pre-requisite: IDL 580 Minimum Grade of B and IDL 581
Minimum Grade of B.

MIC 633  Advanced Virology  3 cr
This course reviews the reproductive cycles of important
human viruses and subviral agents and the diseases they
cause. The focus is on the molecular biology of animal
viruses and their mechanisms of regulation, assembly,
and pathogenesis. Human immunodeficiency virus will
be considered in detail. The course is constructed as an
interactive lecture series with student reports and literature
surveys.
Pre-requisite: IDL 580 Minimum Grade of B and IDL 581
Minimum Grade of B.

MIC 636  Microbiology-Immun Res Sem  1 cr
Students present a research topic for discussion before
members of the department. Usually scheduled on a
rotational basis. Student participation required after end of
second year. Attendance required.

MIC 799  Research-Dissertation  1 TO 6 cr
Independent research by the student under the sponsorship
of the graduate faculty in individual departments in the
Basic Medical Sciences. Students are required to submit
a research project description form before enrolling in this
course. Progress reports of the work accomplished are
required every six months.