

MICROBIOLOGY AND INFECTIOUS DISEASES (GS07)

GS07 1015 Microbial Genetics and Physiology (5 Credits)

Prerequisites: GS21 1017: Foundations of Biomedical Research or Permission of Instructor. The objective of this course is to provide our second-semester, first-year students with a broad knowledge of prokaryotic and eukaryotic microbial biology. Topics covered include genetics, gene expression, signal transduction, and stress responses, cell biology, pathogenesis, host responses, and antimicrobial therapy. The course is divided into 15 one-week units composed of at least two faculty-led lectures and two roundtable discussions of the primary literature. Letter grades are based on participation (25%), writing exercises focused on the papers discussed in class (50%), and a weekly problem set (25%). Letter Graded

GS07 1092 Topics in Microbiology and Infectious Diseases (2 Credits)

Prerequisites: Previous coursework in molecular microbiology or permission of instructor. This course provides cutting-edge information on selected topics in Microbiology and Infectious Diseases and develops the student's ability to critically review research and develop a research program. The course primarily consists of student presentations and discussion of recent scientific articles. The list of articles for each session will be provided in advance. Students will also be required to develop and write a full NIH-style grant proposal. This course satisfies the GSBS Scientific Writing requirement. Letter Graded

GS07 1731 Seminar in Infectious Diseases (1 Credit)

Prerequisite: Coursework or work experience in microbiology. A small group discussion course examining the biologic and clinical basis of infectious diseases. Students will attend and analyze infectious disease grand rounds presentations, tour a clinical microbiology laboratory, participate in group discussions with infectious disease physicians, and critically analyze clinically-related articles in the general areas of microbial pathogenesis, host-parasite interactions, diagnosis, therapy and prevention. Pass/Fail

GS07 1741 Literature Survey in Microbiology and Infectious Diseases (1 Credit)

Prerequisite: None. This is a required course for all MID Program students except for those in their final thesis/dissertation writing semester. Students will present and critically evaluate recent journal articles. The specific articles will be chosen by the presenter from the literature in the fields of microbiology and infectious diseases. Students will be evaluated on their presentation and participation in discussions. Pass/Fail

GS07 1751 Micro & Moleculr Genetics Seminar Series (1 Credit)

Prerequisite: None. This is a required course for all MID Program students except for those in their final thesis/dissertation writing semester. Attendance of at least 75% of the seminars is required for a passing grade. Students will attend the weekly departmental seminars series in the Department of Microbiology and Molecular Genetics. Pass/Fail