Microbiology and Immunology

Courses offered by the Department of Microbiology and Immunology are listed under the subject code MI on the Stanford Bulletin’s ExploreCourses web site.

Graduate Programs in Microbiology and Immunology
The Department of Microbiology and Immunology offers a program of training leading to the Ph.D. degree, as well as research training, courses, and seminars for medical students and postdoctoral fellows. Research interests focus on two broad areas: host/parasite interactions, and the function of the immune system. Laboratories investigate mechanisms of pathogenesis and the physiology of viruses, bacteria, and protozoan parasites, as well as the lymphocyte function in antigen recognition, immune response, and autoimmunity.

Master of Science
A regular M.S. program is not offered, although this degree is awarded under special circumstances. Candidates for master’s degrees are expected to have completed the preliminary requirements for the B.S. degree, or the equivalent. In addition, the candidate is expected to complete 45 quarter units of work related to microbiology; at least 25 of these units should concern research devoted to a thesis. The thesis must be approved by the student’s committee.

Doctor of Philosophy in Microbiology and Immunology
University requirements for the Ph.D. are described in the “Graduate Degrees (http://exploredegrees.stanford.edu/graduatedegrees)” section of this bulletin.

Application, Admission, and Financial Aid
Prospective Ph.D. candidates should have completed a bachelor’s degree in a discipline of biology or chemistry, including course work in biochemistry, chemistry, genetics, immunology, microbiology, and molecular biology. Information for prospective students can be found on the Stanford Biosciences (https://biosciences.stanford.edu/prospective-students) website. Applications should be submitted at the Office of Graduate Admissions (http://gradadmissions.stanford.edu) website.

In the absence of independent fellowship support, entering doctoral students are fully supported with a stipend and tuition award. Highly qualified applicants may be honored by a nomination for a Stanford Graduate Fellowship. Successful applicants have been competitive for doctoral fellowships such as those from the National Science Foundation.

Program for Graduate Study
The Ph.D. degree requires course work and independent research demonstrating an individual’s creative, scholarly, and intellectual abilities. On entering the department, students meet an advisory faculty member; together they design a timetable for completion of the degree requirements. Typically, this consists of first identifying gaps in the student’s undergraduate education and determining courses that should be taken. Then, a tentative plan is made for two to four lab rotations (one rotation per quarter). During the first year of graduate study in the department, each student also takes seven upper-level (200-series) courses.

Graduate Advising Expectations
The Department of Microbiology and Immunology is committed to providing academic advising in support of graduate student scholarly and professional development. When most effective, this advising relationship entails collaborative and sustained engagement by both the adviser and the advisee. As a best practice, advising expectations should be periodically discussed and reviewed to ensure mutual understanding. Both the adviser and the advisee are expected to maintain professionalism and integrity.

Faculty advisers guide students in key areas such as selecting courses, designing and conducting research, developing of teaching pedagogy,
navigating policies and degree requirements, and exploring academic opportunities and professional pathways.

Graduate students are active contributors to the advising relationship, proactively seeking academic and professional guidance and taking responsibility for informing themselves of policies and degree requirements for their graduate program.

Additional information about the department’s policy on graduate advising can be found on the Microbiology and Immunology (http://med.stanford.edu/microimmuno.html) website. For a statement of University policy on graduate advising, see the "Graduate Advising (http://exploredegrees.stanford.edu/graduatedegrees/#advisingandcredentialstext)" section of this bulletin.

Emeriti: (Professors) Hugh O. McDevitt, Edward S. Mocarski

Chair: David Schneider

Associate Chair: Peter Sarnow


Professor (Teaching): Robert D. Siegel

Associate Professors: Manuel Amieva, K.C. Huang, Justin Sonnenburg

Assistant Professors: Paul Bollyky, Jan Carette, Elizabeth Egan, Shirit Einav, Juliana Idoyaga, Ellen Yeh

Institute for Immunity, Transplantation and Infection

Director, Human Immune Monitoring Center and Professor (Research): Holden Maecker