Infectious Diseases and Immunity

The Graduate Group in Infectious Diseases and Immunity provides an opportunity for the study of the biology of infectious agents, their interaction with human and other hosts, and their relationship with the environment. The PhD program is unique in its emphasis on integrated multidisciplinary training in host-pathogen environmental interactions. Important areas of inquiry include the biology of host-pathogen interactions, molecular and cellular aspects of pathogenesis, the ecology and evolution of disease agents, environmental factors in transmission, intermediate hosts and vectors, the biology of surveillance and epidemiological analysis, vaccine and drug development, and public health practices for disease prevention and control.

The objective of this program is to provide students with research-oriented pursuits that will train them to design and implement independent investigations. The goal is to promote health by the integration of basic research and applied technologies for the development of new approaches for the diagnosis, treatment, prevention, and control of infectious disease in humans.

Students matriculating through this program will acquire expertise in fundamental infectious disease research and thus are well prepared for careers in academia, governmental agencies, and biotechnology. For admission requirements and application process, please visit both the IDI website (http://idi.berkeley.edu/) and the Grad Division website (https://grad.berkeley.edu/admissions/apply/) f for details. Application deadline: December 1st for the following year's fall semester admission.

Applying for Graduate Admission

Thank you for considering UC Berkeley for graduate study! UC Berkeley offers more than 120 graduate programs representing the breadth and depth of interdisciplinary scholarship. The Graduate Division hosts a complete list (https://grad.berkeley.edu/admissions/choosing-your-program/list/) of graduate academic programs, departments, degrees offered, and application deadlines can be found on the Graduate Division website.

Prospective students must submit an online application to be considered for admission, in addition to any supplemental materials specific to the program for which they are applying. The online application and steps to take to apply can be found on the Graduate Division website (https://grad.berkeley.edu/admissions/steps-to-apply/).

Admission Requirements

The minimum graduate admission requirements are:

1. A bachelor’s degree or recognized equivalent from an accredited institution;
2. A satisfactory scholastic average, usually a minimum grade-point average (GPA) of 3.0 (B) on a 4.0 scale; and
3. Enough undergraduate training to do graduate work in your chosen field.

For a list of requirements to complete your graduate application, please see the Graduate Division’s Admissions Requirements page (https://grad.berkeley.edu/admissions/steps-to-apply/requirements/). It is also important to check with the program or department of interest, as they may have additional requirements specific to their program of study and degree. Department contact information can be found here (https://guide.berkeley.edu/graduate/degree-programs/).

Where to apply?

Visit the Berkeley Graduate Division application page (http://grad.berkeley.edu/admissions/apply/).

Curriculum

Courses Required		
Group I: Infectious Diseases (2 courses):		
PB HLTH 260A	Principles of Infectious Diseases	4
And one of the following:		
PB HLTH 262	Molecular and Cellular Basis of Bacterial Pathogenesis	3
PB HLTH 265	Molecular Parasitology	3
PB HLTH 266B	Zoonotic Diseases	2
Group II: Immunology (1 course): Student should take PH 263 as far as possible and not both PH 263 and MCB 250		
PB HLTH 263	Public Health Immunology	3-4
or MCELLBI 250	Advanced Immunology	
Group III: Biostatistics (1 courses):		
PB HLTH 142	Introduction to Probability and Statistics in Biology and Public Health	4
or PB HLTH 245	Introduction to Multivariate Statistics	
Group IV: Epidemiology (2 courses)		
PB HLTH 250A	Epidemiologic Methods I	3
PB HLTH 253B	Epidemiology and Control of Infectious Diseases [1]	3
or PB HLTH 26	Molecular Epidemiology of Infectious Diseases	
Group V: Research (2 courses)		
PB HLTH 293	Doctoral Seminar (IDI Doctoral Seminar)	1
PB HLTH 293	Doctoral Seminar (Doctoral Research Seminar)	2
In addition to the required courses listed above, students will elect several additional courses appropriate to the student’s area of research interest with the guidance of the Graduate Advisor and other faculty.		
Examples for electives (also includes courses listed above):		
PB HLTH W25(	Course Not Available [4]	
PB HLTH 260F	Infectious Disease Research in Developing Countries [2]	
PB HLTH 257	Outbreak Investigation [2]	
MCELLBI 210	Advanced Biochemistry and Molecular Biology: Macromolecular Reactions and the Cell [4]	
MCELLBI 230	Advanced Cell and Developmental Biology [4]	

[1] IDI PhD students without an epidemiology background are strongly encouraged to read more about Epidemiology and/or take PB HLTH 250A prior to taking PB HLTH 253B.

For a full list of IDI faculty, please visit the IDI website (http://idi.berkeley.edu/#faculty).