Dear Infectious Diseases and Vaccinology Incoming Class 2021,

On behalf of the faculty, students and staff of the Division of Infectious Diseases & Vaccinology (IDV) at UC Berkeley, we would like to welcome you enthusiastically to our program at UC Berkeley. This handbook is assembled as a resource guide for new students. Please read this in conjunction with the School of Public Health Student Handbook (available in the Berkeley Public Health website at sph.berkeley.edu/Student Resources) and the Resources and Services for Graduate Students at Graduate Division website at http://grad.berkeley.edu/students/

Much of the information in this guide can also be found in the School website under IDV program sections.

Our faculty and staff are here to support you and take pride in your academic success. Please feel free to contact us for assistance. Wishing you a very prosperous and rewarding year ahead!

Sincerely,

Lee Riley, MD

Professor of Epidemiology and Infectious Diseases

Chair, Division of Infectious Diseases and Vaccinology

School of Public Health
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IDV MPH Program Core Competencies

Students completing the MPH curriculum with a concentration in Infectious Diseases should be able to:

- Describe the viral, bacterial, fungal, and parasitological agents of infectious diseases of humans;

- Explain the manifestations of infectious diseases and the biological, molecular, cellular, and immunological mechanisms of infectious disease;

- Identify the local, state, federal, and international agencies responsible for infectious disease surveillance and control and explain their roles and missions;

- Conduct classical and molecular analyses for the detection and characterization of infectious disease agents;

- Implement advanced diagnostic and surveillance techniques used in clinical and public health laboratories;

- Identify current public health problems in communicable diseases and describe how the social, behavioral, environmental, and administrative/policy components of public health affect infectious disease distributions;

- Demonstrate use of biostatistics and epidemiology in infectious disease surveillance;

- Critically evaluate biological and experimental designs for infectious disease research;

- Organize, analyze, and present scientific data in a lucid manner through oral and written communication.
IDI PhD Program Core Competencies

**Students completing the Infectious Diseases and Immunity PhD curriculum should be able to:**

- Describe the viral, bacterial, fungal, and parasitological agents of infectious diseases of humans;
- Explain the manifestations of infectious diseases and the biological, molecular, cellular and immunological mechanisms of infection and disease;
- Demonstrate advanced knowledge of molecular biology, microbiology, immunology, biochemistry and cell biology;
- Identify the local, state, federal and international agencies responsible for infectious disease surveillance and control and explain their roles and missions;
- Conduct classical and molecular laboratory methods;
- Identify current public health problems in communicable diseases and describe how the social, behavioral, environmental and administrative/policy components of public health affect infectious disease distributions;
- Demonstrate use of biostatistics and epidemiology in infectious disease;
- Critically evaluate biological and experimental designs for infectious disease;
- Organize, analyze and present scientific data in a lucid manner through oral and written communications;
- Teach coursework in an area relating to infectious diseases;
- Plan, conduct, and publish original research in the area of infectious diseases and immunity.
Overview

The study of infectious diseases focuses on the interactions between infectious agents, their hosts, and the environment that may lead to disease in humans. Infectious Diseases and Vaccinology (IDV) is a multidisciplinary program. The curriculum is designed to emphasize the biology and molecular biology of host-pathogen interactions; host immune response to infection associated with protection or pathology; the ecology, evolution, and transmission of infectious agents, methods of laboratory-based surveillance and the epidemiology of infectious diseases.

The mission of the Infectious Diseases and Vaccinology Program is to create opportunities for students to gain new and advanced knowledge about infectious disease agents and how they interact with host cells, human populations, and the environment. Students learn how to design and implement independent investigations using interdisciplinary approaches. The goal is to promote public health through better understanding of infectious diseases and human immunology based on interaction of basic and translational research that contributes to the development of new diagnostics, treatment, prevention, and control of human infectious diseases.

The Division of Infectious Diseases & Vaccinology offers:

- The professional two-year MPH degree in Infectious Diseases & Vaccinology; and
- The five year academic degree of the Infectious Diseases and Immunity PhD program (wet lab research).

IDV Office Address:

2121, Berkeley Way West Building (BWW) #5321-15, Berkeley, CA 94720-7360
Email: idadmin@berkeley.edu
Phone: (510) 642-2613
Office hours: By appointment
Website: sph.berkeley.edu
Faculty 

Gertrude C. Buehring, Ph.D., Professor of Graduate School, Emeritus, 61A Koshland Hall

Peter Dailey, Ph.D., Assistant Adjunct Professor 5321-13 Berkeley Way West (By appointment) pjdailey@berkeley.edu

Eva Harris, Ph.D., Professor of Infectious Diseases and Molecular Biology, IDI PhD program Head, 500B Li Ka Shing Center

Fenyong Liu, Ph.D., Professor of Virology 326 Barker Hall

Veronica Miller, Adjunct Professor. 5321-14 Berkeley Way West (By appointment) veronicam@berkeley.edu

Lee W. Riley, M.D., Professor and Division Chair of Infectious Diseases & Vaccinology 500D Li Ka Shing Center

George F. Sensabaugh, Professor of Graduate School, Emeritus 319 Mulford Hall

Sarah Stanley, Associate Professor, School of Public Health 500C Li Ka Shing Center

John E. Swartzberg, M.D., Clinical Professor of Medical Virology & Microbiology, Emeritus 570 University Hall

Ashley Wolf, Assistant Professor, SPH/CCB 81A Koshland Hall

New Faculty (start in January 2022)

Filipa Ferreira, Assistant Professor, SPH

Affiliate Faculty

Jay Graham, PhD, MBA, MPH, Assistant Professor in Residence, Env. Health Sciences

Joseph Lewnard, PhD, Assistant Professor, Epidemiology

Staff

Teresa Liu, IDV Division and Program Manager Office: 5321-15, 2121 Berkeley Way West idadmin@berkeley.edu (510) 642-2613

CPHPL Staff

Audrey B. Cristobal, Director of Field Education acristobal@berkeley.edu

Kandis Rogers, Career & Internship Specialist krodgers@berkeley.edu
IDV Faculty

Gertrude Buehring, PhD
Eva Harris, PhD
Peter J. Dailey PhD, MPH
Fenyong Liu, PhD
Veronica Miller, PhD
Lee W. Riley, M.D.
George F. Sensabaugh, D. Crim.
Sarah Stanley, PhD
John E. Swartzberg, M.D.
Jay Graham, MPH, PhD
Joseph Lewnard, PhD
Ashley R. Wolf, PhD
For an update and full list of faculty publications, please refer to the respective faculty profile and website.

Gertrude Case Buehring, PhD
Professor of the Graduate School, Public Health
Office: 61-A Koshland Hall
Phone: (510) 642 – 3870
Fax: (510) 642 – 6350
Email: buehring@berkeley.edu

Education:

PhD - Genetics, University of California, Berkeley

CLS - Doctors Hospital (clinical laboratory scientist)

BA - Biology, Stanford University

Current Courses upon request of students:

PH 298,299, URAP mentoring

RESEARCH INTERESTS:

Viral etiology of human breast cancer

Bovine leukemia virus (BLV) and its possible role in causing human breast cancer

Development of early diagnostic tests for BLV infection and a vaccine against BLV

CURRENT PROJECTS:

1. How do humans become infected with BLV? Is it from cattle via bovine food products?

2. Can we reduce BLV infection of humans in California by eradicating BLV from beef and dairy herds (which currently have a high rate of infection)?

3. Can women infected with BLV pass the virus to their children transplacentally or through breast milk?

4. Are other human organs /cells besides breasts and blood cells infected by BLV and could the virus be associated with cancer in these organs?

5. Does infection of normal human breast cells with BLV in culture cause them to acquire characteristics of a malignant cell?
Selected publications:


Other interests:

Member, Graduate group in Infectious Diseases and Immunology, UC Berkeley

Member, Graduate group in Endocrinology, UC Berkeley
Course Taught:
- PH 266B Zoonotic Diseases

Research Interests:
- Development, evaluation, and implementation of diagnostic assays to combat antimicrobial resistance
- Development, evaluation, and enabling access of infectious disease diagnostics in low-resource settings

Current Projects:
- Senior Technical Officer for the Foundation for Innovative New Diagnostics (FIND). FIND is a nonprofit organization headquartered in Geneva, Switzerland whose mission is to drive the development and early implementation of innovative diagnostic tests that have a high impact on patient care, disease control, and public health in low-resource settings.
- COVID-19 Point-Of-Care molecular assay development
- CARB-X (Combatting Antimicrobial Resistant Bacteria – Accelerator); provide support to CARB-X specifically in their investments into diagnostics to combat AMR
- Development of a Lassa Fever molecular diagnostic assay
- Diagnostics to Ensure Antibiotic Stewardship for the Treatment of Gonorrhea Infections
- Development of a simplified and innovative blood culture system adapted to low level healthcare settings in low- and middle-income countries (LMICs)

Selected Publications:


Eva Harris, Ph.D.

Professor of Infectious Diseases
Director, Center for Global Public Health
Infectious Diseases and Immunity PhD Program Head
Office: 500B Li Ka Shing Center
Lab: 510D Li Ka Shing Center
Phone: (510) 642-4845
Email: eharris@berkeley.edu

Courses Taught:
- PH265: Molecular Parasitology (odd-numbered year Fall)
- PH260F: Infectious Disease Research in Developing Countries (Even-numbered year Spring)
- PH292/3: Doctoral Research Seminar
- PH162A: Public Health Microbiology (Fall) (Team taught with Fenyong Liu and IDV Faculty)

Research Interests:
- Molecular virology, pathogenesis, immunology, epidemiology, clinical aspects, and control of dengue, Zika, and chikungunya
- Epidemiology of influenza in tropical countries
- Scientific capacity building in developing countries

Research Description:
Professor Harris has developed a multidisciplinary approach to study the molecular virology, pathogenesis, immunology, epidemiology, clinical aspects, and control of dengue, Zika, and chikungunya—the most prevalent mosquito-borne diseases in humans. Her work investigates viral and host factors that modulate disease severity and immune correlates of protection and pathogenesis, using in vitro approaches, animal models, and research involving human populations. One major focus is on studies of arboviral disease in humans, including antibody and B cell responses and correlates of protection; systems immunology profiling of the innate response; and viral evolution, fitness, and intrahost diversity. Another focus is viral pathogenesis, specifically the role of NS1 protein in vascular leak and ZIKV infection of the human placenta. Her international work focuses on laboratory-based and epidemiological studies of dengue, Zika, chikungunya, and influenza in endemic Latin American countries, particularly in Nicaragua, where she has been working closely with the Ministry of Health for over 30 years. Long-term collaborations include clinical, biological, and immunological studies of severe disease through a 20-year pediatric hospital-based study; a 15-year ongoing pediatric cohort study of dengue, Zika, chikungunya, and influenza transmission in Managua; and a cluster randomized controlled trial of evidence-based community-derived interventions to prevent and control arboviral diseases.

Selected Publications:

Andrade, P., Narvekar, P., Montoya, M., Michlmayr, D., Balmaseda, A., Coloma, J., Harris, E. (2020) Primary and secondary dengue virus infections elicit similar memory B cell responses but breadth to other serotypes and cross-reactivity to Zika virus is higher in secondary dengue. *J. Infect. Dis.* Mar 20. pii: jiaa120. doi: 10.1093/infdis/jiaa120. [Epub ahead of print]


Michlmayr, D., Andrade, P., Gonzalez, K., Balmaseda, A., and **Harris E.** (2017) CD14+ CD16+ monocytes are the main targets of Zika virus infection in peripheral blood mononuclear cells in a paediatric study in Nicaragua. *Nat Microbiol.* 2(11):1462-1470. PMC5997390

**Other interests:**

- President, Sustainable Sciences Institute
- Director, Center for Global Public Health
- Infectious Diseases and Immunity Graduate Group (Chair)
- Microbial Biology Graduate Group
Fenyong Liu, Ph.D.
Professor of Virology
Office: 326 Barker Hall
Phone: (510) 643-2436
Fax: (510) 643-9955
E-mail: liu fy@berkeley.edu

Courses Taught:

PH 162A: Public Health Microbiology (Fall, Team-Taught with Harris and IDV Faculty)
PH 162L: Public Health Microbiology lab (Fall)
PH 264: Current Issues in Infectious Diseases (Fall) (2nd IDV MPH students only)

Research Interests:

- Biology of human viruses (e.g. herpes, cytomegalovirus)
- Development of novel antiviral agents
- Biochemistry of nucleic acids and RNA enzymes

Selected Publications:


Veronica Miller, Ph.D.

Adjunct Professor
Executive Director, Forum for Collaborative HIV Research
Phone: (202) 974-6290
Fax: (202) 872-4316
E-mail: veronicam@berkeley.edu

Education:
Postdoctoral - Virology, University of California, Los Angeles
Postdoctoral - Cell Biology, University of New Mexico
PhD - Immunology, University of Manitoba
BSc - Microbiology, University of Manitoba

Course Taught:
PH 236: U.S. Food and Drug Administration, Drug Development, Public Health, and Health Policy
PHW236A: Regulatory Science, Drug Development and Public Health

Research Interests:
- Advancing regulatory science for unmet medical/public health needs
- Collaborative frameworks for drug development
- Translating biomedical innovation to global access
- Disease areas: HIV, HCV, HBV, CMV, liver diseases

Research Description:

In 2001, Miller joined the Forum for Collaborative Research—a public/private partnership addressing cutting-edge science and policy issues through a process of stakeholder engagement and deliberation—as executive director. The Forum brings together researchers and advocates, national and international regulatory agencies, pharmaceutical and diagnostic companies, health care providers, and private foundations to compare data and debate consequences. The Forum also identifies gaps and impediments, frames issues, and helps set research strategy.

Under her leadership, the Forum for Collaborative Research extended its deliberative process to advance regulatory science (applied successfully to HIV) to drug development for hepatitis C infection, the treatment of liver diseases (NASH and fibrosis), and human cytomegalovirus disease in solid organ and stem cell transplant patients.

Prior to 2001, Miller’s own research focused on randomized clinical trials and observational cohorts to determine factors associated with HIV treatment outcomes, including the impact of drug resistance, documented in more than 50 peer-reviewed articles. Her original research work contributed to FDA and EMA guidelines on assessment and reporting of drug resistance and the generation of international guidelines for drug resistance testing.
Current Projects:

- HIV Cure Project
- Overcoming Health Disparities in the Bay Area Using HIV/AIDS and HCV as Models
- HCV Drug Development Advisory Group
- Facilitating Drug Development for the Treatment of Liver Disease
- Facilitating Drug Development for the Prevention and Treatment of CMV Disease in Transplantation Settings
- Pre-Exposure Prophylaxis and Microbicide Research
- HBV Therapeutic and Curative Interventions
- Pediatric HIV Clinical Trials
- Addressing the Regulatory Challenges of Primary Sclerosing Cholangitis (PSC) to Advance Therapeutic Interventions

Selected Publications:


Lee W. Riley, M.D.

Professor and Head, Division of Infectious Diseases and Vaccinology
Office: 500D Li Ka Shing Center
Lab: 530E Li Ka Shing Center
Phone: (510) 642-9200
E-mail: lwriley@berkeley.edu
Lab Website:
https://sites.google.com/site/rileylabucberkeley/home

Courses Taught:

- PH 260A: Principles of Infectious Diseases (Fall)
- PH 260E: Molecular Epidemiology of Infectious Diseases (Even-numbered year Fall)
- PHW 260: Principles of Infectious Diseases (with Dr. Swartzberg)

Research Interests:

- Mechanisms of drug resistance in Gram-negative bacteria
- Molecular epidemiology of tuberculosis and drug-resistant Gram-negative bacterial infections
- Rapid diagnostic test development for drug-resistant Gram-negative bacterial infections
- Tuberculosis biomarker test development and validation
- Field epidemiology and global health research focused on diseases of urban slums

Current Projects:

- Global Health Equity Scholars Fellowship Program: A NIH/Fogarty International Center-funded project to train US postdoctoral fellows and advanced PhD students to go abroad do research related to slum health.
- NIH-funded project on new diagnostic test development for drug-resistant Gram negative bacterial infections.
- CDC-funded project on molecular epidemiology of community-acquired urinary tract infections.
Selected Publications:


George F. Sensabaugh Jr. D Crim

Professor of Biomedical and Forensic Sciences
Professor of Graduate School
Professor Emeritus
Phone: (510) 642-1271
E-mail: sensaba@berkeley.edu

Education:

- Postdoctoral Fellow - Genetics, National Institute for Medical Research, London
- Postdoctoral Fellow - Chemistry, University of California, San Diego
- D Criminology - University of California, Berkeley
- BA - Philosophy, Pre-Med, Princeton University

Research Interests:

- Microbial population genetics and evolution - molecular epidemiology
- Genetic variation in human populations - biological significance and evolutionary origins
- Forensic science - forensic genetics, science-law interactions, concepts of identification

Research Description:

Microbial Population Genetics and Epidemiology

We are interested in the genetic structure of populations of species in the genus staphylococcus and in the role of mobile elements in shaping variation within and between species.

Forensic Science

Our research interests focus on the analysis and interpretation of biological evidence, with a current emphasis on the utilization of biological evidence in the investigation and prosecution of sexual assault.

Current Projects:

- Genomic characterization, population structure, and evolution of Staphylococcus saprophyticus
- Review of evidence collection and DNA profile outcomes in sexual assault cases

Selected Publications:


**Other interests:**

- Affiliated Faculty - Graduate Group in Forensic Science, UC Davis
Sarah Stanley, Ph.D.

The King Sweesy and Robert Womack Endowed Chair in Medical Research and Public Health
Associate Professor
School of Public Health
Molecular and Cell Biology
Office: 500C Li Ka Shing Hall
Phone: (510) 666-3729
E-mail: sastanley@berkeley.edu

Research Interests:

- Mechanisms of pathogenesis and immune subversion in tuberculosis
- Protective immunity to tuberculosis
- Metabolic interactions between hosts and pathogens
- Development of novel therapeutics for tuberculosis
- Scientific capacity building

Selected Publications:


Braverman J, Stanley SA. Nitric oxide modulates macrophage responses to M. tuberculosis infection through activation of HIF-1α and repression of NF-kB. J. Immunol, 2017 Sep 1; 199(5):1805-1816.


**Stanley, SA**, Cox, JS. Host-pathogen interactions during *Mycobacterium tuberculosis* infections. *Current topics in Microbiology and Immunology*, 2013 July 24.


John E. Swartzberg, MD, FACP

Clinical Professor,
Emeritus
Chair, Editorial Board, UC Berkeley Wellness Letter
Office: 570 University Hall
Phone: (510) 643-0499
Fax: (510) 643-8771
E-mail: jes@berkeley.edu

Courses Taught:

- HMS 202 D/E: Clinical Skills
- PHW 260: Principles of Infectious Diseases
- PH 266C: Hospital Associated Infections (Fall)

Research Interests:

- Healthcare Associated Infections
- Infectious Diseases
- Journalism and Public Health

Selected Publications:

UC Berkeley Wellness Reports:

- Dietary Supplements, 2017
- Eating for Optimal Health, 2017
- Women's Health, 2017
- Men's Health, 2017
- Controlling Your Cholesterol, 2017

Other interests:

- Chair, Editorial Board - UC Berkeley Wellness Letter
Jay Graham PhD, MBA, MPH

Assistant Professor in Residence,
Environmental Health Sciences
Affiliate IDV Faculty
Phone: (510) 643-5716
E-mail: jay.graham@berkeley.edu

Education:

- PhD – Environmental Health Sciences – John Hopkins Bloomberg School of Public Health, 2007
- MBA – University of Texas at El Paso, 2002
- MPH – University of Texas Health Science Center, 2000
- BS – Biology, University of Arkansas, 1994

Courses Taught:

- PH W200F: Environmental Health Sciences
- PH 270A: Exposure Assessment and Control

Research Interests:

- Community-acquired antimicrobial resistance
- Zoonotic infectious diseases
- Environmental determinants of infectious diseases
- Exposure assessment
Joseph Lewnard, PhD
Assistant Professor, Epidemiology
Affiliate IDV Faculty
Phone: (510) 664-4050
E-mail: jlewnard@berkeley.edu

Education:

- Post doctoral – Harvard TH Chan School of Public Health, 2018
- PhD – Epidemiology of Microbial Diseases, Yale University, 2017
- BA – (Hons.), Geography, Music, McGill University, 2013

Courses Taught:

- PH 253B: Epidemiology and Control of Infectious Diseases

Research Interests:

- Infectious diseases
- Antimicrobial resistance
- Public health surveillance
- Mathematical modeling
- Bayesian inference
Ashley R. Wolf, PhD

Assistant Professor, IDV
Assistant Professor, Center for Computational Biology
Office: 81A Koshland Hall
E-mail: awolf@berkeley.edu

Education:

- PhD – Systems Biology, Harvard University
- AB – Molecular Biology, Princeton University

Research Interests:

- Mechanisms defining gut microbiome composition
- Microbial metabolism of dietary ingredients
- Bacterial competition in the mammalian gut
- Impact of the gut microbiome on host physiology
I. Research/Education -Related
   1. Health Analyst, Research analyst, research associate, research scientist in a:
      • Public health sector, biotechnology, state (CDHS) or federal (CDC, LBL, FDA, NIH, etc.) unit/laboratory;
      • county health department laboratory or division (e.g., communicable diseases, STD, TB, bioterrorism);
      • hospital-based or academic research groups/institutions;
      • forensics laboratory;
      • city sanitation department.
   2. Clinical Trial Associate/Assistant, Clinical Researcher in pharmaceutical company.
   3. Licensed clinical laboratory scientist in a hospital or private laboratory at a supervisory level (must complete 12-15 month training program and licensure).
   4. As a stepping stone for a higher degree: Dr PH, PhD, DVM, MD. Some IDV MPH graduates continue on for more education immediately after graduation such as MD, DrPH, PhD degrees.

II. Epidemiology -Public Health Epidemiologist in private or public sector
   1. Infection control officer/coordinator in a hospital/medical center or other institution.
   2. Regional Epidemiologist.
   3. Surveillance coordinator in a public health department.
   4. Epidemiology analyst.

III. Public health microbiologist in a state or county public laboratory at a supervisory level (must complete 6-month training program and licensure).

IV. Teaching
   1. Clinical laboratory scientist or public health microbiologist training programs (with appropriate licenses).
   2. Instructor or faculty in a junior college.
   3. Academic coordinator for microbiology lab courses, internships, etc. in a college or university.
   4. Field program supervisor, public health practice.

V. Program Administrator
   1. Biohazard inspector for a university, institute, or biotech company.
   2. Environmental microbiologist.
   3. Industrial hygienist specializing in infectious diseases.
   4. Health facility evaluator.
   5. Health program director
   6. Program Coordinator/Program Analyst

VI. Journalism
   1. Science writer
   2. Producer/director of science programs

VII. Consulting

VIII. Supplement (public health perspective) to an already earned doctoral degree
Previous employers of IDV grads include:
MPH Program Curriculum Requirements

This MPH program provides a basic course of study in public health microbiology and infectious diseases. Persons with a firm background in biology but with no prior experience in infectious diseases, can gain the basic education necessary to pursue careers in the public health, industrial, and clinical fields of infectious diseases. Persons with prior backgrounds in the infectious diseases (i.e. medical technologists, clinical and public health microbiologists, nurses, physicians, etc.) can update and broaden their public health base. Forty-eight (48) graduate units are required for graduation. All Breadth and Division core courses must be taken in letter grades, with a minimal of a B-grade for graduation. Students must maintain an overall grade-point average of at least 3.0 on the basis of all upper division and graduate courses taken in graduate standing (100- and 200-level, please note 300-level and below 100 level courses will not count for graduation). No more than one third of the classes for graduation can be taken in Satisfactory or Unsatisfactory (S/U) grade. A Satisfactory grade implies work of B minus (B-) quality or better. The time required to complete the MPH degree is two years. Twelve units is full time. Graduate students in the MPH program usually take 16 units per semester and the maximum units they can take each semester is no more than 20.5 units.

As part of general School of Public Health Breadth requirements, the following courses: PH 142 and PH 250A or accepted substitutes must be taken. More advanced level substitutes are recommended when possible (please refer to MPH Breadth Course Requirement), or an exemption examination passed.

MPH Breadth Requirement:

PH 200J, K, & L  Public Health Core Breadth Course
(PH 200J- 2 units, 200L-2 units, (4 units total) (Fall 2021)
(PH 200K 2 units)(Sp 2022)

PH 142 Probability and Statistics in Public Health and Biology (4 units) (F)

PH 250A Epidemiologic Methods (3 units) (Su) (F)

PH 297 Public Health Field Study (3 units) (Placement in Summer 202),
Register the class PH 297 Fall 2022 in S/SU grade for 3 units

PH 291A PH Leadership course

MPH students are required to attain a B- or better in Breadth Course Requirements (Epidemiology PH 250A; Biostatistics PH 142; Health Policy & Management PH 200J; Environmental Health PH 200K; Health and Social Behavior PH 200L). This rule also applies to alternative courses. Please refer to the School wide Student Handbook for details. Students attaining less than a B- will be required to retake the course in order to receive a MPH degree. Students must also meet the “Good Academic Standing Rule” (i.e. student must maintain overall GPA of a B, which is a 3.0) to participate in the PH 297 Field Study and to graduate.
Special curricular requirements for the IDV MPH Program are as follows:

IDV Core Requirements:

PH 260A  Principles of Infectious Disease, Part I (4 units) (F)
PH 264  Current Issues in Infectious Diseases (2 units) (F, 2nd yr IDV MPH students only)
PH 263  Public Health Immunology (3 units) (F)

PH 260A must be taken in the first year. PH 264 must be taken in the fall of the 2nd year.

Advanced Courses:
At least three advanced courses are required for all MPH students for graduation. Courses offered in alternate years are in bold.

PH 260E  Molecular Epidemiology of Infectious Diseases (2 units) (Fa 2022)
PH 260F  Infectious Disease Research in Developing Countries (2 units) (Sp 2023)
PH 262  Molecular Basis of Bacterial Pathogenesis (3 units) (Sp)
PH 265  Molecular Parasitology (3 units) (Fa 2023)
PH 266B  Zoonotic Diseases (2 units) (Sp) (not offered in Spring 2022)
PH 236  US Food & Drug Admin, Drug Development, and Public Health (2 units) (Sp)
PH 266C  Hospital Associated Infections (IDV Div Seminar) (2 units) (Fa)

IDV Division Seminar:

All IDV MPH students are required to register for PH 266C: Hospital Associated Infections, the IDV Division Seminar, and will be offered in every Fall. Only one seminar is needed, and a substitution by another School of Public Health seminar related to Infectious Diseases may be acceptable as IDV Division Seminar. Please contact IDV Division Manager for questions. Please note it is established that PH 290 Infectious Diseases Modeling Seminar I or II by Professor John Marshall can be counted as IDV MPH seminar.

IDI PhD students should enroll in PH 293: IDI Monday Doctoral Seminar (1 unit) every semester till graduation and PH 293: IDI Wednesday Doctoral Seminar (2 unit) (is for pre-QE IDI PhD students to enroll, advanced IDI PhD students are welcome to enroll in the IDI Wed Doctoral Seminar)
## MPH Program
### Sample of Two Year Course of Study

<table>
<thead>
<tr>
<th>COURSE #</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1: Fall 2021 Semester</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*PH 260A</td>
<td>Principles of Infectious Diseases</td>
<td>4</td>
</tr>
<tr>
<td>PH 250A</td>
<td>Epidemiologic Methods I</td>
<td>3</td>
</tr>
<tr>
<td>*PH 200J &amp; L</td>
<td>Public Health Core Breadth Course</td>
<td>4</td>
</tr>
<tr>
<td>PH 142 or</td>
<td>Intro. Probability and Statistics</td>
<td>4</td>
</tr>
<tr>
<td>PH 263</td>
<td>Public Health Immunology</td>
<td>3</td>
</tr>
</tbody>
</table>

| YEAR 1: SPRING 2022 SEMESTER | | |
| PH 250B | Epidemiologic Methods II | 4 |
| PH 257 | Outbreak Investigation | 2 |
| PH 200K | Public Health Core Breadth Course | 2 |
| PH 2XX | Required IDV Advanced Courses or electives | 4 |
| PH 291A | PH Leadership | 2 |

| Summer 2022*PH 297 | Public Health Practice – Field Study Placement | |

| **Year 2: Fall 2022 Semester** | | |
| *PH 264 | Current issues in Infectious Diseases | 2 |
| PH 266C | Hospital Associated Infections (IDV Div Seminar) | 2 |
| PH 253B | Epidemiology and Control of Infectious Diseases | 3 |
| PH 263 | Public Health Immunology | 3 |
| PH 2XX | Required IDV Advanced Course and/or elective | 4 |
| *PH 297 | PH Leadership | 2 |

| **Year 2: Spring 2023 Semester** | | |
| PH 227A | Healthcare Finance | 3 |
| PH 2XX | Required IDV course and/or electives | 10 |
| PH 299 | Work on Capstone project (Comp Paper mentorship), register for 2 units of PH 299 section of your assigned Comp Paper mentor faculty | 2 |

PH 142 or PH 263 can be taken in the first or second year.

Additional courses offered by the School of Public Health and by other departments on the Berkeley campus may be taken to supplement the above curriculum and to satisfy particular student educational objectives. Such courses should include epidemiology, biostatistics, molecular biology, immunology, Public Health policy, MBA and behavioral science.
**Recommended Alternatives to MPH Breadth Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Acceptable Substitutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 142</td>
<td>241, 245, or *exemption exam</td>
</tr>
<tr>
<td>PH 250A</td>
<td>PH 250B or *exemption exam</td>
</tr>
</tbody>
</table>

*Exemption exam will be held during Orientation

**Advanced Courses in Infectious Diseases and Vaccinology**

(Courses offered in alternate years are **bolded**)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 260E</td>
<td>Molecular Epidemiology of Infectious Diseases</td>
<td>2</td>
<td>Fall 2022</td>
</tr>
<tr>
<td>PH 260F</td>
<td>Infectious Diseases Research in Developing Countries</td>
<td>2</td>
<td>Spring 2023</td>
</tr>
<tr>
<td>PH 262</td>
<td>Molecular Basis of Bacterial Pathogenesis</td>
<td>3</td>
<td>Spring 2022</td>
</tr>
<tr>
<td>PH 265</td>
<td>Molecular Parasitology</td>
<td>3</td>
<td>Fall 2023</td>
</tr>
<tr>
<td>PH 236</td>
<td>US Food &amp; Drug Admin, Drug Dev, and Public Health</td>
<td>2</td>
<td>Spring</td>
</tr>
<tr>
<td>PH 266C</td>
<td>Hospital Associated Infections (counts as IDV Div seminar)</td>
<td>2</td>
<td>Fall</td>
</tr>
<tr>
<td>PH 266B</td>
<td>Zoonotic Diseases</td>
<td>2</td>
<td>Spring 2023</td>
</tr>
</tbody>
</table>

35
### Recommended Electives:

Students may take courses as electives from other concentrations such as Biostat, Epi, EHS, Global Health, HSB, HPM, etc. The list below represents recommended electives relevant to the IDV curriculum that IDV MPH students have taken before and have found useful and relevant.

<table>
<thead>
<tr>
<th>Class Number</th>
<th>Class Title</th>
<th>Semester</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biostatistics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH 290</td>
<td>Introduction to SAS Programming</td>
<td>Spring</td>
<td>2</td>
</tr>
<tr>
<td>PH 241</td>
<td>Statistical Analysis of Categorical Data</td>
<td>Spring</td>
<td>2</td>
</tr>
<tr>
<td>PH 245</td>
<td>Introduction to Multivariate Statistics</td>
<td>Fall</td>
<td>4</td>
</tr>
<tr>
<td>PH 251C</td>
<td>Causal Inference and Meta-Analysis in Epidemiology</td>
<td>Fall</td>
<td>2</td>
</tr>
<tr>
<td>PH 251D</td>
<td>Applied Epidemiology Using R</td>
<td>Fall</td>
<td>2</td>
</tr>
<tr>
<td>PH 252C</td>
<td>Intervention Trial Design</td>
<td>Fall</td>
<td>3</td>
</tr>
<tr>
<td><strong>Epidemiology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*PH 250B</td>
<td>Epidemiologic Methods II</td>
<td>Fall</td>
<td>4</td>
</tr>
<tr>
<td>PH 253B</td>
<td>Epidemiology and Control of Infectious Diseases</td>
<td>Spring</td>
<td>3</td>
</tr>
<tr>
<td>PH 253D</td>
<td>Behavioral &amp; Policy Science in HIV Treatment &amp; Prevention</td>
<td>Fall</td>
<td>3</td>
</tr>
<tr>
<td>PH 253G</td>
<td>Sexual Health Promotion and Sexually Transmitted Diseases</td>
<td>Spring</td>
<td>2</td>
</tr>
<tr>
<td>PH 255A</td>
<td>Social Epidemiology</td>
<td>Fall/Spring</td>
<td>4</td>
</tr>
<tr>
<td>PH 256</td>
<td>Molecular and Genetic Epidemiology and Human Health in the 21st Century</td>
<td>Spring</td>
<td>4</td>
</tr>
<tr>
<td>PH 257</td>
<td>Outbreak Investigation</td>
<td>Fall/Spring</td>
<td>2</td>
</tr>
<tr>
<td><strong>Environmental Health Sciences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH 269E</td>
<td>Environmental Medicine</td>
<td>Fall</td>
<td>2</td>
</tr>
<tr>
<td>PH 271D</td>
<td>Global Burden of Disease and Comparative Risk Assessment</td>
<td>Spring</td>
<td>3</td>
</tr>
<tr>
<td>PH 272A</td>
<td>Geographic Information Science for Public and Environmental Health</td>
<td>Spring</td>
<td>4</td>
</tr>
<tr>
<td>PH 273**</td>
<td>Environmental Determinants of Infectious Disease (Seminar)</td>
<td>Fall</td>
<td>3</td>
</tr>
<tr>
<td><strong>Health &amp; Social Behavior</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH 219D</td>
<td>Social and Behavioral Health Research</td>
<td>Fall</td>
<td>3</td>
</tr>
<tr>
<td>PH 204F</td>
<td>Culture, Public Health Practice, and Eliminating Health Disparities: From Ideas to Action in the 21st Century</td>
<td>Spring</td>
<td>3</td>
</tr>
<tr>
<td><strong>Health Policy and Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH 220D</td>
<td>Health Policy Advocacy</td>
<td>Fall</td>
<td>3</td>
</tr>
<tr>
<td>PH 227A</td>
<td>Healthcare Advocacy</td>
<td>Spring</td>
<td>3</td>
</tr>
<tr>
<td><strong>Molecular &amp; Cell Biology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCB 110</td>
<td>General Biochemistry and Molecular Biology</td>
<td>Fall/Spring</td>
<td>4</td>
</tr>
<tr>
<td>MCB 210</td>
<td>Macromolecular Reaction and the Cell</td>
<td>Spring</td>
<td>4</td>
</tr>
<tr>
<td>MCB 250</td>
<td>Advanced Immunology</td>
<td>Spring</td>
<td>4</td>
</tr>
</tbody>
</table>

*Highly recommended  
** Will meet IDV Division seminar requirement

**Note:** Course offerings based on past years; please check the latest course offerings in CalCentral.
MPH Field Study Requirement

Field Study Placement

MPH students are required to complete a field training or project-based public health practice activity following the first year of academic study in public health. This entails a 12-week, full-time work experience during the summer between the 1st and 2nd year. Unit credit is received by registering for 3 units of Public Health Practice Field Study (PH 297) in the Fall semester of the 2nd year.

The Center for Public Health Practice and Leadership (CPHPL) provides the academic and administrative structure for meeting this practice requirement for the MPH degree. To receive academic credit, students need to complete requirements such as: Placement Confirmation Form, Learning Agreement, Site Visit, and Final Project. Visit http://sph.berkeley.edu/careers/internships to learn more.

Infectious Disease students can fulfill the public health practice requirement by active participation in a research or field project within the School or by working in a public health agency at the local, state, national, or international level. Examples of previous internship placements are listed below. Students are encouraged to explore internship options throughout their first Fall semester of the program and into January/February 2022. CPHPL staff will work closely with Dr. Peter Dailey, IDV Field Consultant, to provide support throughout the internship placement process and the duration of the summer internship. IDV will organize information sessions.
### 2021 IDV MPH Summer Field Study Placements

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Field Study</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>California</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarissa Aquino</td>
<td>Gilead Sciences</td>
<td>Foster City</td>
</tr>
<tr>
<td>Adrian Cornejo</td>
<td>University Health Services</td>
<td>UC Berkeley</td>
</tr>
<tr>
<td>Zebediah Eskman</td>
<td>Marin Community Clinics</td>
<td>Marin</td>
</tr>
<tr>
<td>Victor Guillera</td>
<td>Queen’s Medical Center</td>
<td>Napa</td>
</tr>
<tr>
<td>Ashika John</td>
<td>Alameda County Health</td>
<td>Alameda</td>
</tr>
<tr>
<td>Brooke Kazama</td>
<td>City and County of SF – Dept of Emergency Management</td>
<td>San Francisco</td>
</tr>
<tr>
<td>Sandya Krishna</td>
<td>CDPH</td>
<td>Sacramento</td>
</tr>
<tr>
<td>Gia Park</td>
<td>Placer Mosquito and Vector Control District</td>
<td>Roseville</td>
</tr>
<tr>
<td>Anna Parker</td>
<td>Lee Riley Lab</td>
<td>UC Berkeley</td>
</tr>
<tr>
<td>Shrey Saretha</td>
<td>CDPH and Prof. Joe Lewnard</td>
<td>Sacramento, UC Berkeley</td>
</tr>
<tr>
<td>Abi Shotland</td>
<td>CHORI</td>
<td>Oakland</td>
</tr>
<tr>
<td>Nikolina Walas</td>
<td>CHORI</td>
<td>Oakland</td>
</tr>
<tr>
<td>Rowan Wells-Edwards</td>
<td>i4Y</td>
<td>Berkeley</td>
</tr>
<tr>
<td><strong>Out of State</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emily Gainor</td>
<td>The Forum for Collaborative Research</td>
<td>Washington D.C</td>
</tr>
<tr>
<td>Amanda Reilly</td>
<td>Washington State Department of Health</td>
<td>Shoreline, Washington</td>
</tr>
<tr>
<td><strong>International</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colin Warnes</td>
<td>Oxford University Clinical Research Unit</td>
<td>Vietnam</td>
</tr>
<tr>
<td>Student Name</td>
<td>Field Study</td>
<td>Location</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Ariel Munoz</td>
<td>UC Berkeley School of Public Health: Berkeley SafeCampus Study</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Ruben Prado</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Gomez-Aladino</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonnie Xu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daniel Mota</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joseph Lau</td>
<td>UC Berkeley Forum for Collaborative Research</td>
<td></td>
</tr>
<tr>
<td>Frederique Sauve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emily Parker</td>
<td>UC Berkeley School of Public Health: Jay Graham</td>
<td>San Francisco</td>
</tr>
<tr>
<td>Tyler Chervo</td>
<td>UC Berkeley School of Public Health: Joseph Lewnard</td>
<td></td>
</tr>
<tr>
<td>Michelle-Ann Meas</td>
<td>UC Berkeley School of Public Health: East Bay COVID-19 Seroprevalence Study</td>
<td></td>
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<tr>
<td>Alyssa Ochoa-Mena</td>
<td>Life Expectancy Project</td>
<td></td>
</tr>
<tr>
<td>Helen Guo</td>
<td>United Way Bay Area</td>
<td>Richmond</td>
</tr>
<tr>
<td>Elise Symer</td>
<td>CDPH Immunization Branch</td>
<td></td>
</tr>
<tr>
<td>Jennifer DeGuzman</td>
<td>CDPH Vector-Borne Disease Section</td>
<td>Sacramento</td>
</tr>
<tr>
<td>Tolulope Ayoade</td>
<td>Queen of the Valley Medical Center</td>
<td>Napa</td>
</tr>
<tr>
<td>Matthew White</td>
<td>USC Keck Medical Center</td>
<td>Los Angeles</td>
</tr>
</tbody>
</table>

"California"
### 2019

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Field Study</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>California</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hannah Sans</td>
<td>UC Berkeley School of Public Health: Buehring Lab</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Clarissa Martinez</td>
<td>Grifols Diagnostic Solutions Inc</td>
<td>Emeryville</td>
</tr>
<tr>
<td>Kelli Hager</td>
<td>Alameda County Mosquito Abatement District</td>
<td>Hayward</td>
</tr>
<tr>
<td>Jennifer Nguyen</td>
<td>LA County Department of Public Health</td>
<td>Los Angeles</td>
</tr>
<tr>
<td>Nathaniel Sands</td>
<td>Children’s Hospital &amp; Research Center</td>
<td></td>
</tr>
<tr>
<td>Jane Lee</td>
<td>CEPA: Office of Environmental Health Hazard Assessment</td>
<td>Oakland</td>
</tr>
<tr>
<td>Kerri Ann Chen</td>
<td>Alameda County Health Care Services Agency</td>
<td></td>
</tr>
<tr>
<td>Diana Holden</td>
<td>CDPH: Healthcare-Associated Infections Program</td>
<td></td>
</tr>
<tr>
<td>Kaley Parchinski</td>
<td>CDPH: Tuberculosis Control Branch</td>
<td>Richmond</td>
</tr>
<tr>
<td>Phoebe Lu</td>
<td>CDPH: Disease Investigations Section</td>
<td></td>
</tr>
<tr>
<td>Benjamin Iwaszewicz</td>
<td>CDPH: STD Control Branch</td>
<td></td>
</tr>
<tr>
<td>Peter White</td>
<td>Centers for Disease Control &amp; Prevention</td>
<td>San Diego</td>
</tr>
<tr>
<td>Christopher Hernandez</td>
<td>San Francisco Department of Public Health</td>
<td>San Francisco</td>
</tr>
<tr>
<td>Jan Bing Del Rosario</td>
<td>University of California, San Francisco</td>
<td></td>
</tr>
<tr>
<td><strong>Out of State</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jessica Le</td>
<td>Ventana Medical Systems, Inc.</td>
<td>Arizona</td>
</tr>
<tr>
<td>Angela Monahan</td>
<td>Forum for Collaborative Research</td>
<td>Washington DC</td>
</tr>
<tr>
<td><strong>International</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rachel Marusinec</td>
<td>Universidad de San Francisco de Quito</td>
<td>Ecuador</td>
</tr>
<tr>
<td>Kathleen Kurowski</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gathenji Njoroge</td>
<td>Lucile Salter Packard Children’s Hospital</td>
<td>Kenya</td>
</tr>
<tr>
<td>Robin Hauschner</td>
<td>UC Berkeley School of Public Health: Harris Lab</td>
<td>Nicaragua</td>
</tr>
<tr>
<td>Junlin Chen</td>
<td>Ministry of Public Health</td>
<td>Thailand</td>
</tr>
</tbody>
</table>
Students graduating from the MPH Program in Infectious Diseases are expected to possess both core knowledge and critical thinking skills in the area of infectious diseases and a basic understanding of the scope of public health. Students are evaluated for competency in these areas through a capstone project/comprehensive examination which consist of two components:

1. Preparation of an analytical comprehensive paper on a topic involving infectious diseases in the public health context. This will serve as the student capstone project, a requirement for the MPH degree.

2. Students do an oral presentation of their capstone project in April their graduating semester.

The purpose of the comprehensive/analytical paper is to take the student through the process of writing a professional and academic paper, from formulating a hypothesis, gathering data/information, analyzing the results, coming to conclusion(s) supported by the data, building the structure of the paper, writing, revising and finalizing the paper with proper references.

The preparation of the comprehensive/analytical paper is initiated during the Fall Term of the 2nd year in the course “Current Issues in Infectious Diseases” (PH 264). Students are expected to identify their paper topic early in the Fall semester. The topic may build upon the student’s own experience, e.g., a research project, the field study or a community intervention project. Alternatively, the student may develop a novel topic of his/her own interest, e.g., a policy proposal on a public health issue or a research proposal. Second year IDV MPH students present their Field Study projects in the IDV MPH symposium in one of PH 264 classes in late September (this will serve as the final report/assignment of their Field Study and complete the final academic requirement of the Field Study).

**Students should start working on the Comprehensive Paper topics early in Fall**

Once the topics are decided and approved in the class of PH 264, a faculty mentor will be assigned to the student, who will help the student with the development of the paper as early as in Oct. Student will need to register in the comp paper faculty mentor PH 299 course in their graduating semester for 2 units in letter grade only.

During the Fall semester PH 264 course, students will give presentations reviewing progress of their papers for peer and faculty mentor critique as applicable. The paper is completed in the Spring semester under the mentorship of a faculty member in the program assigned to the student under the PH 299 Independent Research (2 units) course number. Students are welcome to get area expertise advice from other faculty not in the program, but the mentor of the paper must be an IDV faculty.

Students should meet with their faculty mentors in late Oct to discuss their proposed paper topics and set a schedule and adhere to it for the work to be done. Students should update/meet with their mentors regularly on their progress and make revisions to the paper per feedbacks given. A near complete draft is due to the
faculty mentor in mid-February. The final written paper is due in mid-March to the Division prior to Spring Break. The paper is typically 10-15 pages, single spaced, in length (not including references, figures, tables). Deadlines must be strictly adhered to. No late submission will be accepted.

Students submitting acceptable comprehensive papers are then qualified to take the oral presentation of their capstone project/comp paper. Passing of both the written paper and the oral presentation are required to satisfy the Capstone project requirement for graduation.
Financial Aid

There are several sources of financial support available for MPH students in IDV Division:

Graduate Division Fellowships:

**Block Grant (BG) for Academic Excellence.** For new students BG, usually about 1 to 2 awards for IDV which is processed through BPH fellowship competition process per nominated by the Division during admission process. In addition, about 10 Block Grants awards for continuing students for the entire School is available for second year students to apply. BPH Student Services will administer and call for applications for BG award for continuing students. Please watch out for emails from Student Services to apply.

**Graduate Student Instructors (GSI):** about 6 per year for courses in our Division. GSI appointment is similar to Teaching Assistants in other universities, appointment 25% or more come with partial fee remission in addition to salary income. A 25% GSI appointment and 50% GSI appointment work about 10 hrs and 20 hrs per week respectively. First time GSI required to complete the new GSI requirements as a condition for employment. Many for science courses offered by departments such as Molecular and Cell Biology (MCB) at http://mcb.berkeley.edu/grad/graduate-support/gsi-appointments hire a lot of GSI each semester, and IDV MPH students are highly sought after to teach the big courses like BIO 1A and 1B courses. Integrative Biology also hire some GSI. Please apply for GSI positions seeking by departments in your expertise areas and visit the respective department’s website for details. And watch out for the weekly student digest from Student Services. Application for GSI positions usually made at least one semester in advance. Announcements are made at the department websites, email announcements, job postings in career center and open areas. Please contact the respective Student Affairs Officers for details and pay attention to email announcements at the BPH weekly student digest. Please note last minute GSI job openings may be available prior to semester starts. Students interested to apply for GSI should always highlight your academic qualifications and credentials and your teaching assistant/tutoring experience in your application.

**Graduate Student Researchers (GSR):** GSRs positions are usually hired by faculty and sometimes by research centers for administrating projects or programs. For appointment 25%-44% GSR appointments, it comes with partial fee remission as benefits. For 45% or above GSR appointments, students will get full fee remission. GSRs are subject to availability of funds and research needs. Please contact individual professors to see if they have any positions available. Moreover, faculty usually will give preference to PhD students for GSR appointments.

**PHAA Fellowships**

**Travel Grants**
Financial Aid

Work Study Job or Other Job Opportunities will be announced in Student Services students weekly digest among other announcements as well as BPH Career Center job site.

Please note that you can convert some of your loan amount to work study (if you do not offer any) this will make you more competitive in the process as under the Workstudy program, the employer only needs to pay approx. half of your salary, the other half will come from the Government. Unlike loans, which is guaranteed funding, Workstudy award is only an amount of how much you can earn within the Workstudy program, you still have to land on the job and earn the income. Please visit workstudy program website at http://financialaid.berkeley.edu/work-study and contact Financial Aid Office for questions.

Useful website for jobs:

Work Study: http://workstudy.berkeley.edu/JobSearch.aspx

Center for Public Health Practice and Leadership:

Jobs and Internships :Search for full-time or part-time jobs, fellowships, internships, GSI/GSR, and volunteer opportunities using PHLEX

Association for Schools and Programs for Public Health (ASPPH) link for students to find outside scholarship and external financial aid
http://www.aspph.org/study/financing-your-degree/
Courses

From the Berkeley General Catalog

PH 162A: Public Health Microbiology (4 units) (Fall)
Course Format: Two 1½-hour lectures per week.
Prerequisites: One year each of college-level biology and chemistry.
Description: Introduction to properties of microorganisms; their relationships with humans in causing infectious diseases and in maintaining health. May be taken without 162L.
(F) Harris, Riley (Fall 2021) and Liu; (Su)

PH 162L: Public Health Microbiology Laboratory (4 unit) (Fall)
Course Format: One 2-hour laboratory per week.
Prerequisites: One year each of college-level biology and chemistry.
Description: Laboratory to accompany 162A.
(F) Liu

Course Format: Two hour lectures per week.
Prerequisites: None
Description: The process and principles of drug development will be discussed in the context of the FDA’s mandate and reach (basic science, pre-clinical and clinical research, policy law, and public health), emphasizing the impact of public health emergencies such as HIV on evolution of regulatory policies.
(Sp) Miller

PH 260A: Principles of Infectious Diseases (4 units) (Fall)
Course Format: 4 hours of lecture per week.
Prerequisites: Upper division course preparation in biology
Description: This course presents general principles of microbial interactions with humans that result in infection and disease. Common themes are developed using examples of viral, bacterial, and parasitological pathogens that exemplify mechanisms of infectious disease. The epidemiology, pathogenesis, host immune response, diagnosis, treatment, and control will be presented for each infectious disease discussed.
PH 260A: (F) Riley
PH 260E: Molecular Epidemiology of Infectious Diseases (2 units)
(Fall of even-numbered years)
Course Format: Three hours of lecture and ½ hour of discussion per week.
Prerequisites: PH 250A, PH 260A or equivalent course.
Description: The course will cover general principles and practical approaches in the use of molecular laboratory techniques to address infectious disease epidemiologic problems. It is designed for students with experience in the laboratory or in epidemiology, but not both. The principles to be discussed will include the use of molecular techniques in outbreak investigations, characterizations of dynamics of disease transmission, identifying vehicles, and quantifying attributable risks in sporadic infections, refining data stratification to assist case-control studies, distinguishing pathovars from non-pathogenic variants of organisms, doing surveillance, and identifying genetic determinants of disease transmissions.
(Fall 2022) Riley

PH 260F: Infectious Disease Research in Developing Countries (2 units)
(Spring of odd-numbered years)
Course Format: Two hours of lecture per week.
Description: The objective of this course is to provide M.P.H. and Ph.D. students with an appreciation and understanding of the complex issues involved in conducting scientific, laboratory-based investigation in developing countries. We will discuss the many obstacles to establishing and sustaining research projects, such as poor infrastructure, insufficient financial and material resources, and lack of scientific information and interaction. More importantly, we will identify innovative solutions to overcoming these obstacles. The first half of the course will consist of presentations by investigators in the U.S. and developing countries that have long-term research experience in Latin America, Asia, and Africa. We will also discuss related issues such as ethical considerations, equitable collaborations, and research capacity strengthening. During the second half of the course, students will give presentations on topics of their choice.
Offered in odd-numbered year.
(Sp 2023) Harris

PH 262: Molecular and Cellular Basis of Bacterial Pathogenesis (3 units) (Spring)
Course Format: Three hours of lecture and 1 hour of literature review per week.
Prerequisites: PH 260A, PH 260B, or consent of instructor.
Description: This course for graduate students will explore the molecular and cellular basis of bacterial pathogenesis. The emphasis will be on model bacterial pathogens of mammals. The course also will include some aspects of bacterial genetics and physiology, immune response to infection, and the cell biology of host-parasite interactions. Public health courses 102 and 262 are taught concurrently. Students enrolled in PH 262 also will be required to attend a weekly discussion of the primary literature, both current and classic. Each student will be required to present one paper.
(Sp) Portnoy
PH 263: Public Health Immunology (3 units) (Fall)

Course Format: Three hours of lecture and 1 hour of literature review per week

Description: This course will be the principal immunology course for graduate students in the field of public health. It is designed to teach both the basic biology of the human immune system and its response in health and disease, especially the specific response of the human immune system to major human pathogens. Four areas will be explored: 1) components of the immune system (spectrum of cell types and cell products); 2) different arms of the immune system including humoral, cell-mediated, innate and mucosal immunity; 3) specific immune response to infection caused by viral, bacterial, fungal, and parasitic pathogens; and 4) disorders of the immune system unrelated to infectious disease.

(F) Garlin and Popper (Fall 2021)

PH 264: Current Issues in Infectious Diseases (2 units) (Fall)

Course Format: One 2-hour lecture and presentation per week.

Prerequisites: 2nd year Infectious Diseases M.P.H. students only.

Description: Formerly PH 264A-264B. Examination of scientific, social, and policy dimensions of issues involving infectious diseases. Students select one topic for in-depth analysis and present findings in class. Topics vary from year to year.

(F) Liu

PH 265: Molecular Parasitology (3 units) (Fall of odd-numbered years)

Course Format: Two 1½-hour lectures and 2 hours of discussion per week for 11 weeks.

Prerequisites: Upper division courses in molecular biology, parasitology, biochemistry, immunology, microbiology, or consent of instructor. Familiarity with reading primary research is recommended.

Credit Option: Course may be repeated for credit.

Description: This is an advanced course in the molecular aspects of parasite immunology, molecular biology, genetics, biochemistry, and genomics. For each parasite, the following areas will be covered: biology (history, classification/taxonomy, life cycle), disease spectrum/clinical manifestations, epidemiology (distribution, impact), pathogenesis, immunology (host immune response, immunopathology), vaccine development, and genomics. The lectures will focus on "state-of-the-art" research and knowledge in these areas in relation to molecular mechanisms of pathogenesis, parasite adaptations for survival within the host, and strategies for drug and vaccine development. Course content will rely heavily on current literature. Readings are required and consist of one review article about each parasite and several primary research articles on selected topics that will be focused upon in the lectures.

(Fall 2021) Harris
PH 266A: Foodborne Diseases (2 units) (currently not offer)
Course Format: 1½ hours of lecture per week.
Prerequisites: Basic knowledge of microbiology.
Description: This course will cover public health, microbiological, social, and economical issues related to foodborne diseases. Three areas will be explored: 1) categories, clinical manifestations, and disease processes of foodborne illness; 2) etiological agents causing foodborne illness; 3) investigation and prevention of foodborne illness. The course will discuss different types of foodborne diseases, clinical manifestations, and the interactions between etiological agents (pathogens and non-pathogens) and human hosts. We will cover pathogens that are the most frequently associated with foodborne illness, including bacterial and viral pathogens such as Salmonella, E. coli, hepatitis viruses and Norwalk-like gastroenteritis viruses. We will also study non-pathogen agents such as heavy metal, pesticide, and toxic chemicals. Furthermore, the course will discuss how to identify the etiological agents in outbreaks and possible measures that can be taken to minimize the risk to the public, including vaccines and education. Finally, we will explore the social and economic issues involved in the food production, distribution, and consumption that contribute to foodborne diseases.

PH 266B: Zoonotic Diseases (2 units) (Spring)(not offered Spring 2022)
Course Format: One 2-hour lecture per week.
Prerequisites: Principles of Infectious Disease (PH 260A) or equivalent Infectious Diseases course (may be taken concurrently)
Description: This is a graduate (Ph.D. and MPH) level course designed to describe the major zoonoses and their life cycle, disease manifestations, epidemiology, and methods for prevention and control. Available treatments, diagnostics, and public health and agriculture surveillance and “forecasting” programs will also be discussed. The most recent research on the molecular and cellular basis of the mechanisms and consequences of the “species” jump from other animals to humans will be reviewed. The global nature of zoonotic diseases and the integration of multiple disciplines (molecular biology, immunology, epidemiology, evolutionary biology, ecology, animal science, veterinary medicine, etc.) will be emphasized.
(Sp) Dailey

PH 266C: Hospital Associated Infections (2 units) (Fall)
Course Format: 1 hour lecture and 1 hour discussion per week.
Description: This course will examine and evaluate the principles underlying the control of infections in healthcare settings, the causes of these infections, current important topics in this field and future trends. Students will gain an appreciation of the national and local programs involved in preventing HAI’s, their major causes, antimicrobial control, and specific agents and procedures causing HAI’s. The class instructors have spent many decades in infection control in healthcare settings. Additional, there will be an invited guest for each class who has extensive knowledge of the topic to be discussed. (Division Seminar requirement)
(F) Swartzberg
PH 291: Public Health Professional Development Series (1 unit) Spring

Course Format: Two hours of workshop every week.
Description: A series of skills-based workshops designed to introduce the student to specialized skills needed in the public health workplace. These workshops are designed to complement the core curriculum of the School of Public Health and are selected based on regular feedback from faculty, public health practitioners, and students. Workshop facilitators include consultants, CPHP field supervisors, and public health practitioners with expertise in the subject. This course or series of workshops is open to all M.P.H. and Dr.PH. students. Students select from a list of 2-hour workshops to total 1 unit equal to 15 hours of class time, plus readings that are assigned for many of the workshops. Workshop topics have included writing for publication, moderating focus groups, human resources management, legislative policy and advocacy, negotiation, evaluation, tools for financial planning, scientific grant writing, leadership, oral presentations, strategic planning, cultural competency, time management, and budgeting.
(Sp) CPHPL staff

PH 293: Doctoral Seminar (1-2 units)

Course Format: One to four hours of seminar per week.
IDI Monday Doctoral Seminars PH 293 (1 unit, letter grade) Instructor: (Fall) (not offered in Fall 2021)
IDI Wednesday Doctoral Research Seminar PH 293 (2 units, letter grade) Instructor: (Fall 2021) Harris
Credit Option: Course may be repeated for credit.
Description: Discussion and analysis of dissertation research projects, as well as of conceptual and methodological problems in planning and conducting health research.
(F, Sp) IDV Faculty

PH 297: Field Study in Public Health (3 units) S/SU grade only

Course Format: Field Study.
Grading Option: Must be taken on a satisfactory/unsatisfactory (S/U) grade.
Description: Supervised experience relevant to specific aspects of public health in off-campus organizations for graduate students. Regular individual meetings with faculty sponsor and written reports required. IDV students should sign up for 3 units.
(Field Study will be completed in the summer after the first year; student should register the class in their second year fall semester) Staff

PH 298: Group Study (1-8 units)

Course Format: Independent study.
Credit Option: Course may be repeated for credit.
(F, Sp, Su) Faculty

PH 299: Independent Research (1-12 units)

Credit Option: Course may be repeated for credit.
Description: Independent study.
(F, Sp, Su) Faculty
Seminar Offerings

Fall 2021 & Spring 2022:

**IDI Research Seminar:**

PH 293 Sec. 5  Wednesdays Doctoral Seminar (2 units, letter grade) (Fall and Spring)
Class # 16521  Instructor: Dr. Eva Harris, Fall 2021
Wednesdays 11 a.m. to 1 p.m.
Discussion and analysis of dissertation research projects, as well as conceptual and methodological problems in planning and conducting health research. IDI PhD students who have not passed the QE must enroll in this course every semester. Other IDI PhD students are welcome to take the seminar if interested.
Dr. Harris is teaching this class Spring 2021 (Class #17133)

**IDV Division Seminar:**

Fall 2021:

PH 266C  Hospital Associated Infections (2 units)
Class # 29530  Instructor: Dr. Swartzberg
Thursdays, 10 a.m. to noon

Course Description:
This course will look at and evaluate the principles underlying the control of infections in hospitals, the causes of these infections, current important topics in this field and future trends. Students will gain an appreciation of the national and local programs involved in HAI’s, their major causes, antimicrobial control, and specific agents and procedures causing HAI’s.
Ph.D. Program Introduction

The study of infectious disease and immunity focuses on those interactions between infectious agents, their human and other hosts, and their relationship to the environment that may lead to disease in humans. Infectious disease agents include primarily pathogenic bacteria, fungi, helminthes, protozoa, and viruses that continue to be leading causes of morbidity and mortality in human populations throughout the world. The treatment, control, and prevention of infectious diseases depend upon an in-depth knowledge of the biology and genetics of the pathogen; the factors that allow pathogens to infect, persist in the host and produce disease; and the host’s defense mechanisms that bring about recovery. This requires an integration of the disciplines of molecular and cellular biology, genetics, immunology, microbiology (which include virology, bacteriology, mycology as well as parasitology) and epidemiology.

The Graduate Group in Infectious Diseases and Immunity is an interdepartmental graduate program that provides graduate students an opportunity to obtain a Ph.D. degree that is unique in emphasizing integrated, multidisciplinary training of host-pathogen-environmental interactions. Important areas of inquiry include the molecular biology of host-pathogen interactions where the molecular and cellular biology of pathogenesis will be investigated; the ecology, evolution, and transmission of infectious agents where the mechanisms of infectious disease acquisition through environmental factors, intermediate hosts and vectors are integrated with biology, surveillance and epidemiological analysis; and prevention and control where the relationship between host immunity and preventive public health practices are integrated with molecular approaches for detection and vaccine and drug development.

The objective of this program is to provide students with research-oriented pursuits that will train them to design and implement independent investigations and advance the fundamental knowledge of infectious disease agents and their interactions with the human host and the environment. The goal is to promote health by 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. This program crosses traditional departmental boundaries to combine clinical, epidemiological, and basic laboratory research strategies in modern biology and apply these to specific infectious disease problems affecting human populations. Thus, students that matriculate from this program will acquire expertise in fundamental infectious disease research for which there is demand from academic institutions, local and national government agencies, and biotechnology companies.
Ph.D. Program Admission and Curriculum

I. Undergraduate Preparation for Admission

Applicants with a B.A. or B.S. degree, typically in the biological sciences, from accredited institutions must meet the following minimal qualifications for admission:
   a) satisfactory record of scholarship (minimum GPA of 3.0),
   b) evidence of significant intellectual potential (GRE scores), and
   c) demonstrated competence in English.

Admission Criteria: Final selection for admission follows the ranking of all applicants on the basis of academic record, intellectual potential, preparation, letters of recommendation, research interests, and overall promise, as well as availability of enrollment allocation (determined by the Campus) for the program. Admissions are limited to the top 10% of the applicants depending on available allotment. Because a major part of the program is laboratory research training, each admitted student must be acceptable to at least three faculty members who would commit to providing research training in their laboratory.

The following subjects are normally required as undergraduate preparation for all candidates. Deficiencies must be made up early during the graduate program.
   a) Mathematics: calculus; one course in probability or statistics.
   b) Physics: general physics.
   c) Chemistry and biochemistry: inorganic chemistry; organic chemistry; biochemistry and associated laboratories.
   d) Biology: general biology lecture and laboratory; genetics, and a basic course in molecular biology.

Applicants are reviewed by the Group Admissions Committee appointed by the Group Chair and are considered for entry in the fall semester only. Admission recommendations are forwarded to the Dean of the Graduate Division for final approval.

II. Foreign Language

There is no requirement for a foreign language.

III. Program of Study

1. Program

In addition to the minimal core course requirements (listed below – see Section II, Part 3), each student shall take additional courses selected in consultation with the major professor and/or Graduate Advisor and approved by the Group Executive Faculty Committee. The specific courses will not be listed here since this part of the student’s curriculum will be tailored to meet identified professional career goals. In addition, laboratory rotations, teaching, Candidacy examination, research resulting in a dissertation and a culminating seminar are required for completion of the Ph.D. degree.
2. Unit Requirements

Doctor of Philosophy:
Students should take a minimum of twelve units each semester to qualify for full time students, and are advised not to take more than 16 to avoid academic overload. Any class load exceeding 20.5 units will need the Head Graduate Advisor's approval. The minimum requirements include a) general training in molecular biology, epidemiology, statistics, and research ethics; and b) specific training in infectious disease related to their major interest to obtain more specialized preparation. It is expected that students will complete a minimum of 30 units of predominantly graduate-level courses, in addition to 4 units of graduate seminar. All IDI PhD students must enroll and participate in PH 293 the IDI Seminar Series: Monday Doctoral Seminar. In addition, IDI PhD students who have not passed their qualifying examinations must enroll and participate in Wednesday Doctoral Seminar PH 293.

During the first three to four semesters of the program, doctoral students complete all or most of the course work required for the degree and rotate through the research laboratories of one to three faculty members, who evaluate the student’s ability to conduct laboratory research. This allows the student to determine what research opportunities are available to them, to learn new research methods that will be of value in their subsequent dissertation research, and to decide on a suitable research project for their dissertation.

The Candidacy examination is taken no later than the 4th semester. Within three months of passing the examination, the student is required to apply for Advancement to Candidacy for the Ph.D. degree, and then complete the requirements for the degree under Plan B of the Graduate Division, by submitting an acceptable dissertation on a suitable research question in a timely fashion.

3. Required and Recommended Courses, including teaching requirement
The following minimum core graduate courses, or their equivalent, are required of all students in the Graduate Group. These courses should be taken before the Qualifying Examination Committee is appointed, and the student must receive a “B” or higher grade average in these courses.
IDI PhD Program 2021-2022
Coursework Requirement & Recommended Electives Courses

The following minimum core graduate courses, or their equivalent, are required of all students in the Graduate Group. These courses should be taken before the Qualifying Examination Committee is appointed, and the student must receive a “B” or higher grade average in these courses, except seminars that may be taken on a S/U basis.

Group I: Infectious Diseases (2 courses)
- PH 260A Principles of Infectious Disease, Part I (4 units); Riley
- And one of the following:
  - PH 262 Molecular Basis of Bacterial Pathogenesis (3 units); Portnoy
  - PH 265 Molecular Parasitology (3 units); Harris
  - PH 266B Zoonotic Diseases (2 units); Dailey

Group II: Immunology (1 course)
- PH 263 Public Health Immunology (3 units)
Or:
- MCB 250 Advanced Immunology (4 units); Raulet/Robey

Group III: Epidemiology and Biostatistics (2 courses)
- PH 142 Introduction to Probability & Statistics (4 units)
Or:
- PH 245 Introduction to Multivariate Statistics (4 units)
- PH 250A Epidemiologic Methods I (4 units)
- PH 253B* Epidemiology and Control of Infectious Diseases (3 units); Reingold
Or:
- PH 260E Molecular Epidemiology (2 units); Riley

*Note: IDI PhD students without an epidemiology background are strongly encouraged to read more about Epidemiology and/or take 250A prior to taking PH 253B

Group IV: Research (2 courses)
- PH 293 IDI Monday Doctoral Seminar (1 unit) required every semester (Note: will not be offered in Fall 2021)
- PH 293 IDI Doctoral Research Seminar (2 units) for pre-QE students, other IDI students are welcome

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):
- PH 250B Epidemiologic Methods II (4 units)
- MCB 210 Molecular & Cell Biology (4 units)
- PH 260F Infectious Disease Research in Developing Countries (2 units)
- PH 257 Outbreak Investigation (2 units)
- MCB 230 Advanced Cell Biology (4 units)
4. Lab Rotations
Rotations in lab provide an opportunity for students to experience different research areas and environments. Lab rotation should be arranged by mutual agreement with the faculty and the student in consultation with the IDI Head Graduate Advisor. Each lab rotation may last 10 weeks and should begin as early as desired, but no later than the mid of the first semester. IDI follows MCB lab rotation schedule. The schedule for 2021-2022 is follows:

1st Rotation: Sept. 15 – Nov. 24, 2021
2nd Rotation: Nov. 29, 2021 – Feb. 18, 2022
3rd Rotation: Feb. 22 – April 29, 2022
Grace Period: May 2 – May 4, 2022
Permanent Lab Placement Due (based on mutual agreement between faculty and student): May 6, 2022

Students are suggested to do at least one or two lab rotations before deciding on the lab for their research. IDI PhD first year students must decide on their lab by the end of April 2022 or early May 2022, the latest. And inform IDI Head Graduate Advisor Eva Harris and the IDV Program Manager as soon as possible of their lab decision based on mutual agreement with the PI and the student. It is important for continuity of student funding support by the PI of the lab they joined.

5. Teaching Requirements
Teaching is an important part of training for a scientist and an educator. Doctoral students are required to work as GSIs for at least two semesters 50% GSI is preferable) to fulfill the teaching requirements for the program.

6. Qualifying Examination
The Qualifying Examination (QE) is usually taken late in the second year of graduate study (in the fourth semester), after all course requirements have been completed with a grade-point average of at least 3.0, excluding lower-division courses, seminars, and research. Each student will choose a four-member faculty committee. The committee membership must be approved by the Program Chair of the IDI Graduate Group and IDV Division before the student can submit the e-form officially in CalCentral for program and the Grad Division approval. Both the QE Chair and Academic Senate Representative must be members of the Berkeley academic senate. The latter must be non-IDI Graduate Group faculty. The QE Chair cannot also serve as the Chair of the student’s Dissertation committee. The fourth member can be from the IDI department or other departments with expertise on the subject matter. The Ph.D. Qualifying Examination consists of an oral defense of two written research proposals (10-15 pages each). The application for Qualifying Exam via e-form CalCentral must be submitted at least three weeks prior to the proposed exam date. No students can take the QE Exam without the Grad Division’s approval.

One proposal represents the student’s proposed dissertation research, but the other must be on an unrelated topic pertaining to infectious diseases. The Chair of the Ph.D. Qualifying Examination Committee must approve both proposals. During the examination, questions by the committee focus on the background and theory of the proposed research, the rationale for the presented methods of data analysis, the experimental approach, etc., and not on the actual research results. The latter is a function of the dissertation committee. The purpose of the examination is to test your ability to recognize research problems of fundamental importance, to propose experimental approaches to address problems, and to demonstrate comprehensive knowledge of your
disciplinary area and related subjects to test the student’s mastery of a broad area of knowledge reflecting the interdisciplinary preparation of an approved course of study. Please visit IDI website for IDI Guidelines for QE at Forms and Applications:


7. Advancement to Candidacy

Within the same semester, or the latest, by the following semester, of passing the qualifying examination, students must apply for advancement to candidacy for the Ph.D. degree. IDV Division still require student to copy the hard copy of the form with required signatures before student can submit the e-form in calcentral.berkeley.edu to the GSAO for review and routing to the Grad Division for approval. Information required on the form is as follows:

1) Their dissertation committee and Dissertation title;
2) Whether human subjects or animal research will be involved in the dissertation research. A human subjects protocol must be procured from the Committee for the Protection of Human Subjects before any dissertation research is conducted. Please visit CPHS Web Page at http://cphs.berkeley.edu for requirements and contact ophs@berkeley.edu for questions.

The dissertation committee chair is the student’s research mentor. Both the Dissertation Chair and the Academic Senate Representative of the Dissertation Committee must be members of the Berkeley academic senate. In addition, student must choose another committee member from the Graduate Group in Infectious Disease & Immunity. PhD students with advanced candidacy status are required to meet with their dissertation committee at least once a year and complete an academic progress report in the student information portal with input from both the student and the Dissertation Chair.

8. Research and Dissertation

After obtaining research experience through laboratory rotations, the student should be acquainted with the research opportunities available in several laboratories and can evaluate these opportunities in the context of their personal interests. Students with interests that are clearly defined and are not identified among the Graduate Group faculty, but can be identified among faculty at Berkeley or UCSF outside of the Graduate Group, may elect through direct mentorship of a Graduate Group member to conduct their research in a laboratory other than one represented in the Graduate Group.

Ph.D. candidates who are advanced to candidacy must meet with their dissertation committee periodically at least once a year to:

1) complete the Program requirement on Annual Doctoral Review form in March and;
2) Doctoral Candidacy Review (DCR) eform at calcentral/Student Resources/DCR

The purpose of the committee meeting is to assess student’s progress and provide guidance to the student’s research. It is expected that the student’s research will be of sufficient quality to be accepted for publications in
peer-reviewed journals. A goal of three first-author publications is typically considered to write the dissertation. The emphasis on publication of student research, rather than merely completing a dissertation is an intrinsic component of the Program’s training experience and one of its unique strengths.

9. **Time to Degree**

Most Infectious Disease & Immunity Ph.D. students take 5 years to complete the program. By UC Berkeley policy, IDI students must complete the program in 10 semesters following advancement to candidacy (normative time). Graduates from this program have gone on to academic, government, and industry positions.

10. **Culminating Seminar**

Within three months prior of filing the student’s dissertation, the student will give an oral seminar to the members of the Graduate Group describing the dissertation research conducted at the IDI Monday Doctoral Seminar.
### Coursework

| First and second year | First year: Students usually do 3 lab rotations. IDI follows MCB lab rotations schedule | End of second year (4th semester) | Beginning of the third year. Students should apply for Advancement to Candidacy after passing the QE successfully | 2 GSIs teaching are needed. More if situation warrants | In the semester student ready to file dissertation. Present Dissertation talk in the IDI Monday Doctoral Seminar | Must be registered student or on filing fee to file. Deadline for submission and format see resource links below |

### Lab Rotations

| Group I to Group IV | PIs will review student’s lab performance after each lab rotation. Student must be able to join a lab for dissertation research by May | The QE is a university requirement. Students must demonstrate expertise in the areas of the discipline that have been specified for the exam and be able to produce an acceptable plan for their dissertation. QE should be taken after the coursework requirements are fulfilled | To advance to candidacy, students must organize the Dissertation Committees in consultation of the program Head Graduate Advisor (HGA). Membership of the Committee must be approved by HGA before students can submit the eform in CalCentral e-form. NRST fee will be waived for 6 semesters for after students are advanced. Students must enroll in the PI’s 299 every semester for 12 units till graduation | Apply for GSI positions and land on the job. | PI refer and adhere to the steps to file dissertation carefully in IDI Resources for students/forms and applications |

### Qualifying Exam (QE)

| Plus additional a few advanced course Must enroll in IDI Doctoral Seminar all semesters till graduation | All pre-QE IDI students must enroll in the IDI Wed Doctoral Seminar | Complete the Grad Division requirement on Annual Doctoral Candidacy Review (DCR) via CalCentral | |

### Advance to Candidacy

| Check CalCentral Academic Progress Report to monitor progress | CalCentral: High Ed Committee, QE application e-form hard copy of the QE application to GSAO for review prior to e-form submission | |

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## Notes

- Students usually do 3 lab rotations. IDI follows MCB lab rotations schedule.
- The QE is a university requirement. Students must demonstrate expertise in the areas of the discipline that have been specified for the exam and be able to produce an acceptable plan for their dissertation. QE should be taken after the coursework requirements are fulfilled.
- To advance to candidacy, students must organize the Dissertation Committees in consultation of the program Head Graduate Advisor (HGA). Membership of the Committee must be approved by HGA before students can submit the eform in CalCentral e-form. NRST fee will be waived for 6 semesters for after students are advanced. Students must enroll in the PI’s 299 every semester for 12 units till graduation.
- Apply for GSI positions and land on the job. PI refer and adhere to the steps to file dissertation carefully in IDI Resources for students/forms and applications.
- Must be registered student or on filing fee to file. Deadline for submission and format see resource links below.

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### Resources for Students

- Forms and applications
- Graduate academic progress report

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### Contact Information

- Head Graduate Advisor (HGA)
- Graduate Program Assistant (GSAO)

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### Additional Information

- Complete the Grad Division requirement on Annual Doctoral Candidacy Review (DCR) via CalCentral.
- Check CalCentral Academic Progress Report to monitor progress.
- PIs will review student’s lab performance after each lab rotation. Student must be able to join a lab for dissertation research by May.

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### Key Dates

- End of second year (4th semester)
- Beginning of the third year
- May
- June
- July
- August
- September
- October
- November
- December
- January
- February
- March
- April

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### Important Points

- Students must be able to join a lab for dissertation research by May.
- The QE is a university requirement. Students must demonstrate expertise in the areas of the discipline that have been specified for the exam and be able to produce an acceptable plan for their dissertation.
- To advance to candidacy, students must organize the Dissertation Committees in consultation of the program Head Graduate Advisor (HGA). Membership of the Committee must be approved by HGA before students can submit the eform in CalCentral e-form. NRST fee will be waived for 6 semesters for after students are advanced. Students must enroll in the PI’s 299 every semester for 12 units till graduation.
- Apply for GSI positions and land on the job. PI refer and adhere to the steps to file dissertation carefully in IDI Resources for students/forms and applications.

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### Conclusion

- Must be registered student or on filing fee to file. Deadline for submission and format see resource links below.
- Students must be able to join a lab for dissertation research by May.
- The QE is a university requirement. Students must demonstrate expertise in the areas of the discipline that have been specified for the exam and be able to produce an acceptable plan for their dissertation.
- To advance to candidacy, students must organize the Dissertation Committees in consultation of the program Head Graduate Advisor (HGA). Membership of the Committee must be approved by HGA before students can submit the eform in CalCentral e-form. NRST fee will be waived for 6 semesters for after students are advanced. Students must enroll in the PI’s 299 every semester for 12 units till graduation.
- Apply for GSI positions and land on the job. PI refer and adhere to the steps to file dissertation carefully in IDI Resources for students/forms and applications.
### Ph.D. Program

**Sample Curriculum (Minimum Course load)**

<table>
<thead>
<tr>
<th>COURSE #</th>
<th>UNITS</th>
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<tbody>
<tr>
<td><strong>Year 1 – Fall Semester</strong></td>
<td></td>
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<tr>
<td>Lab rotation</td>
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<tr>
<td>PH 260A</td>
<td>4</td>
</tr>
<tr>
<td>PH 263</td>
<td>3</td>
</tr>
<tr>
<td>PH 265</td>
<td>3</td>
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<tr>
<td>PH 293</td>
<td>2</td>
</tr>
<tr>
<td><strong>Year 1 – Spring Semester</strong></td>
<td></td>
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<tr>
<td>Electives MCB 210</td>
<td>4</td>
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<tr>
<td>PH 142</td>
<td>4</td>
</tr>
<tr>
<td>PH 293</td>
<td>1; 2</td>
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<tr>
<td>PH 253B</td>
<td>3</td>
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<tr>
<td>PH 266B/PH 262</td>
<td>2/3</td>
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<tr>
<td><strong>Year 2 – Summer</strong></td>
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<td><strong>Year 2 – Fall Semester</strong></td>
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<td>PH 299</td>
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<td>PH 293</td>
<td>1; 2</td>
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<tr>
<td>PMB 200B</td>
<td>1.5</td>
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<tr>
<td>PH 260E</td>
<td>2</td>
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<tr>
<td>Electives PH 2XX</td>
<td>3</td>
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<tr>
<td><strong>Year 2 – Spring Semester</strong></td>
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<tr>
<td>Student prepare for QE and take QE in late Spring. Student passed QE must submit the Advancement to Candidacy application in the same semester when passed the QE or the latest by the following semester</td>
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<tr>
<td>PH 299</td>
<td>12</td>
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<tr>
<td>PH 293</td>
<td>1; 2</td>
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<tr>
<td>PH 266B</td>
<td>2</td>
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<tr>
<td><strong>Year 3+ until Graduation</strong></td>
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<tr>
<td>PH 299</td>
<td>12</td>
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<tr>
<td>PH 293</td>
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</tbody>
</table>

IDI PhD students without an epidemiology background are strongly encouraged to read more about Epidemiology and/or take 250A prior to taking PH 253B. In addition to the required coursework (Group I to IV), students should take a few additional advanced courses as electives to strengthen the knowledge in the areas of their interest. Please consult the IDI Head Graduate Advisor or faculty advisor for academic advising and/or IDV Division manager for questions.

*Students should take PH 263 as far as possible instead of MCB 250 to meet the Group II Immunology requirement.*
Financial Aid and Fellowships

The Division offers full funding to doctoral students for the first year of study from a combination of state and Division funds. Funding support will include fees and tuition as well as a monthly stipend. Graduate Student Instructorship (GSIship) can also be used to supplement funding support, independent of the required two semesters of GSIship. Effective Fall 2021, the current minimum annual stipend for IDI students are $38,000.

After the students have decided on the laboratory for research after a series of lab rotations, usually before the fall semester of their second year, the faculty as their mentor and PI, will be responsible for continuing funding the students as Graduate Student Researcher (GSR) until graduation.

Establish CA Residency

United States citizens and permanent residents who are not California residents must establish residency after one year so that they will no longer be subject to non-resident tuition. Please adhere strictly to Establish CA Residency requirements and hard deadlines. Please always contact the Residency Office if you have any questions and refer to the information posted in the website: Establish CA Residency Graduate Students

Extramural sources of pre-doctoral fellowships are available to apply from the National Institute of Allergy and Infectious Diseases, National Science Foundation, and some private sources such as Founder Region Fellowship for women in doctoral program.

Graduate students are strongly encouraged to apply for these and other extramural fellowships.

Intramural sources include Graduate Fellowships are awarded and administered through the Graduate Division. All prospective applicants who wish to be considered for graduate fellowships beginning in the fall semester must apply by December 1st of the preceding year. The number of Graduate Fellowships awarded each year is limited, and the competition for them is highly competitive. Teaching and research assistantships are awarded and administered by the IDV Division of the School of Public Health or the PI’s and the PI’s home department respectively.

Graduate Division Conference Travel Grant for PhD and Master Student in Academic Degrees

PhD and Master’s students in academic degree programs can apply for the Conference Travel Grant If you’re going to present a research paper or poster at a professional conference. Please see the link for details: http://grad.berkeley.edu/news/announcements/travel-grant/

PHAA Alumni Fellowship
**IDI Graduate Group Faculty (IDV core faculty in bold)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barton, Gregory</td>
<td>MCB</td>
</tr>
<tr>
<td>Coscoy, Laurent</td>
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</tr>
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<td>Cox, Jeffery</td>
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<tr>
<td>DuPage Michel</td>
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<tr>
<td>Fleiszig, Suzanne M.J.</td>
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<tr>
<td>Wayne Getz</td>
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<tr>
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<td>SPH</td>
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<td>OPT</td>
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<tr>
<td><strong>Harris, Eva</strong></td>
<td>SPH, HGA DI PhD program</td>
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<tr>
<td>Herr, Amy</td>
<td>Bioengineering</td>
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<tr>
<td>Luke Lee</td>
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<tr>
<td>Lewnard, Joseph</td>
<td>SPH</td>
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<tr>
<td><strong>Fenyong Liu</strong></td>
<td>SPH</td>
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<td>Marshall, John</td>
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<td>Murthy, Niren</td>
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<tr>
<td>Nelson, Kara</td>
<td>CEE</td>
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<td>Reingold, Arther</td>
<td>SPH</td>
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<tr>
<td><strong>Lee Riley</strong></td>
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<tr>
<td>Portnoy, Daniel</td>
<td>MCB/PMB</td>
</tr>
<tr>
<td>Robey, Ellen A.</td>
<td>MCB</td>
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<tr>
<td>Seed, Kimberley</td>
<td>PMB</td>
</tr>
<tr>
<td><strong>Stanley, Sarah</strong></td>
<td>PMB/SPH</td>
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<td>Vance, Rusell E.</td>
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<tr>
<td>Welch, Matthew D.</td>
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<tr>
<td><strong>Wolf, Ashley</strong></td>
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</tr>
<tr>
<td>Zhou, Qiang</td>
<td>MCB</td>
</tr>
</tbody>
</table>
Tips for Newcomers

**Library Resources**
The School of Public Health Library is located on the ground floor of University Hall in Room 1. Your registration card entitles you to borrow books from the main University library and any of its branches. For more information, call the Doe Library Privileges Desk at (510) 642-3403 or visit the UC Berkeley Library homepage at http://www.lib.berkeley.edu.

**Computing Resources**

**Email Accounts:**
UCB Campus email account should be set up once your student identification number (SID) is available at CalMail Website at [https://calmail.berkeley.edu](https://calmail.berkeley.edu). Your Berkeley email account is the official email we will use to communicate with students. Students are responsible for the contents of the emails sent to them regarding policies and deadlines.

**Useful Websites:**
IDV website [https://publichealth.berkeley.edu/academics/infectious-diseases-and-vaccinology/](https://publichealth.berkeley.edu/academics/infectious-diseases-and-vaccinology/)

*(Students can use the search engine in the Berkeley home page to look for Online General Catalog, current Schedule of Classes and links to all campus departments and resources.)*

SPH Career Services: [https://publichealth.berkeley.edu/student-life/career-and-leadership-development/career-services/](https://publichealth.berkeley.edu/student-life/career-and-leadership-development/career-services/)
Office of the Register- Residency Office website: [Establish CA residency/](https://publichealth.berkeley.edu/student-life/career-and-leadership-development/career-services/)

Graduate Division: [http://www.grad.berkeley.edu](http://www.grad.berkeley.edu)
*(Important information on the Guide to Graduate Studies, Information for holding GSI/GSR appointments, various academic forms, and fellowship information can be found in this site)*

Berkeley Public Health homepage: [http://sph.berkeley.edu](http://sph.berkeley.edu)

Basic needs program: [https://basicneeds.berkeley.edu/](https://basicneeds.berkeley.edu/)

Tang Center University Health Services: [https://uhsberkeley.edu](https://uhsberkeley.edu)
The Role of a Faculty Advisor

It is the responsibility of the academic faculty advisor to assist the student in developing an optimal academic plan that meets the basic curriculum requirements for the degree being pursued and insures sufficient flexibility to meet individual goals. The academic faculty advisor is prepared to discuss the requirements of the specific degree program and the individual area of concentration in which the student is enrolled. **It is the student’s responsibility to keep his/her faculty advisor of apprised of their academic progress and seek academic advice as needed.** IDV MPH students are required to meet with their faculty advisor at least once a year, preferably every semester. General program information can be addressed to IDV Division Manager by emails or by appointments. IDI PhD students should always contact Head Graduate Advisor of their progress and communicate with IDV Program manager of their academic requirements, requirements for their milestones and any matter related to their funding.

All faculty advisors will make available a sufficient number of office hours to advise students during Orientation Week, the first week of the semester, and throughout the semester. Please check with faculty of their availability, office hours and schedule meetings by bcal invite or by appointments.

Some possible questions students might want to ask their faculty advisor during an initial meeting is listed below. The purpose of a meeting with a faculty advisor early in a student’s first semester is to give the student a chance to get to know their advisor and vice versa. Faculty advisor also want to learn about the student’s academic and career goals and provide the student with specific information about what he/she can expect from the relationship with a faculty advisor.

During the first meeting, students need to be prepared to talk about their academic goals and ask the questions for which they want answers. Suggested questions for the initial meeting with your faculty advisor include:

1. Let your advisor know whether you have a specific career goal in mind or if you are uncertain and are “exploring different possibilities”.
2. Tell him/her what you would like to focus on while a student here; ask “What courses do you suggest I take?” “Here are the courses I am thinking about taking; what do you think of this plan?”
3. “How often should I plan to meet with you?”
4. “What is the best way to communicate with you if I have questions, a problem, or need to make an appointment?”

Steps for resolving an unsatisfactory advising situation

The faculty advisor’s responsibilities are limited to advising the student about coursework and other aspects of the curriculum. He/she is not necessarily the same person who will be the student’s mentor for the MPH Comp paper. Summer Field Study placement should be arranged early through the CPHPL; students should start the process early by working with the Field Study Placement supervisor and participating in the IDV Field Study Placement information session and speaking with peer students of their experience. IDV faculty advisor can give general research advice to students but are not expected to be involved in the actual placement process. Dr. Dailey is the great resource for IDV MPH students advising on Field Study.

If a student feels that their faculty advisor is not fulfilling their responsibilities, the student should talk first with the advisor regarding that perception, and they should try to work together to take steps toward improving the situation. If the situation is not resolved after talking about it with the faculty advisor, the student is encouraged to talk with the Division Head, Dr. Lee Riley and/or the Associate Dean of Services. It is the responsibility of the Division Head or the Associate Dean to discuss the situation with the faculty advisor to insure resolution of any advising difficulties.
Student Groups

**Infectious Disease and Immunity PhD Student Group**

2021-2022 co-presidents: Marcus Wong, Joanna Vinden

**Association of Public Health Infectious Diseases Students (APHIDS)**

2021-2022 Coordinators: Adrian Cornejo, Brooke Kazama
# 2021-2022 Academic Calendar

## Fall Semester 2021

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall Semester Begins</strong></td>
<td>Wednesday, August 18, 2021</td>
</tr>
<tr>
<td>Instruction Begins</td>
<td>Wednesday, August 25, 2021</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (Labor Day)</td>
<td>Monday, September 6, 2021</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (Veterans Day)</td>
<td>Thursday, November 11, 2021</td>
</tr>
<tr>
<td>Non-Instructional Day</td>
<td>Wednesday, November 24, 2021</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (Thanksgiving)</td>
<td>Thursday, November 25 &amp; Friday, November 26, 2021</td>
</tr>
<tr>
<td>Formal Classes End</td>
<td>Friday, December 3, 2021</td>
</tr>
<tr>
<td>Reading/Review/Recitation Week</td>
<td>Monday, December 6 – Friday, December 10, 2021</td>
</tr>
<tr>
<td>Last Day of Instruction</td>
<td>Friday, December 10, 2021</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>Monday, December 13 – Friday, December 17, 2021</td>
</tr>
<tr>
<td><strong>Fall Semester Ends</strong></td>
<td>Friday, December 17, 2021</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holidays (Winter Holidays)</td>
<td>Friday, December 24 &amp; Monday, December 27, 2021</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (New Year's)</td>
<td>Friday, December 31, 2021 &amp; Monday, January 3, 2022</td>
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</table>
# 2021 -2022 Academic Calendar

## Spring Semester 2022

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Spring Semester Begins</td>
<td>Tuesday, January 11, 2022</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (Martin Luther King, Jr. Day)</td>
<td>Monday, January 17, 2022</td>
</tr>
<tr>
<td>Instruction Begins</td>
<td>Tuesday, January 18, 2022</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (Presidents' Day)</td>
<td>Monday, February 21, 2022</td>
</tr>
<tr>
<td>Spring Recess</td>
<td>Monday, March 21 – Friday, March 25, 2022</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (Cesar Chavez Day)</td>
<td>Friday, March 25, 2022</td>
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<tr>
<td>Classes End</td>
<td>Friday, April 29, 2022</td>
</tr>
<tr>
<td>Reading/Review/Recitation Week</td>
<td>Monday, May 2 – Friday, May 6, 2022</td>
</tr>
<tr>
<td>Last Day of Instruction</td>
<td>Friday, May 6, 2022</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>Monday, May 9 – Friday, May 13, 2022</td>
</tr>
<tr>
<td><strong>Spring Semester Ends</strong></td>
<td>Friday, May 13, 2022</td>
</tr>
<tr>
<td>Academic &amp; Administrative Holiday (Memorial Day)</td>
<td>Monday, May 30, 2022</td>
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</table>
General Information

California Residency
Every entering student is classified as a Resident or Non-resident of California for tuition purposes. Fees and tuition will vary depending upon the student’s residency status. To establish California residence for tuition purpose, it is important for non-California residents to begin collecting documentation. For more information, please visit the Registrar’s website and California residency information for non-citizens is at https://registrar.berkeley.edu/tuition-fees-residency/residency-for-tuition-purposes/residency-requirements-graduate-students/

For inquiries regarding residence requirements, determination, and exemptions, please contact the Residence Affairs Unit of the Registrar’s Office, email: orres@berkeley.edu, phone: (510) 642-5990, office located at 120 Sproul Hall.

Registration and Enrollment
Incoming IDV MPH and IDI PhD graduate students are asked to register for classes they must take by reviewing the program curriculum requirement in Calcentral student portal and confirming their class schedule after meeting with their faculty advisors during Orientation. Make any changes if necessary during the Adjustment Period.

To be officially registered at Berkeley, you must enrolled in at least 12 units; your registration fees must have been paid, either in full or by payment plan, by the published deadlines and you must have no registration/financial blocks. After adjustment period ended by the end of the 3rd week of instruction, students must fill out the Petition to Change Class Schedule for Graduate Students (forms available online) to make course schedule change. The form should be submitted to the Student Services at 417 U Hall and a small fee charged for adding/dropping classes. No change of class schedule will be entertained by Student Services after the SPH internal add/drop deadline for graduate students, it is usually earlier a week prior to the published deadline. Please always check your enrollment status in Calcentral on a regular basis to make sure your enrollment information is correct.

Note: Please check financial aid website for satisfactory academic progress requirement for student receiving federal loans and work study. http://financialaid.berkeley.edu/satisfactory-academic-progress

Online MPH courses
UC Berkeley’s online learning is a rewarding experience that provides students with relevant, unique skills in a way that integrates with your busy schedule. While an online degree is flexible, it requires a good deal of time management. Online courses, like any academic endeavor, require significant effort and a commitment to keeping up with weekly assignments and engaging with course materials in a timely manner. With this in mind, we offer some advice for how to get the most out of your online education.
Campus students must complete the free OOMPH 101 tutorial one-time only prior to requesting a permission code for an online course from your program manager. You may enroll at any time at this link: https://berkelephw.catalog.instructure.com/courses/oomph-101 and selecting “enroll.”

**Campus Resources for students with disabilities**
The campus offers many different resources for graduate students with disabilities. The purpose of an academic accommodation is to offer the graduate student an equal opportunity to meet with the department’s academic standards and requirements. The Disabled Students Program http://dsp.berkeley.edu at (510) 642- 0518 serves graduate students with disabilities (who complete the process of establishing eligibility) by authorizing academic accommodations. To get more information on the Disabled Access Services, please visit http://access.berkeley.edu or contact (510) 643-6473 or (510) 643-6456. It can usually assist with accommodations to extra-curricular events. Most physical access issues are addressed in the Campus Access Guide http://acads.chance.berkeley.edu/GAG/. Finally, problems with accommodations may be reported to the campus Disability Resolution Officer Derek Coates http://acads.chance.berkeley.edu/ada.shtml at (510) 642- 2795

**University Health Services (UHS)**
University Health Services (UHS) provides comprehensive medical, mental health and health promotion services to all Cal students and a variety of occupational health services to faculty and staff.
http://www.uhs.berkeley.edu/

**GSI/GSR Positions**
If you are interested in finding GSI (Graduate Student Instructor) and/or GSR (Graduate Student Researcher). The best way is to contact the Student Affairs Officers and the faculty concerned of individual hiring departments and the faculty concerned, check the department’s website and pay attention to email announcements. Most departments hire their GSI at least a semester or even an academic year ahead of time (such as MCB), please apply early. The SPH GSI job openings are also posted in the SPH Career Center PHLEX. Students and alumni can search for full-time or part-time jobs, fellowships, internships, GSI/GSR, and volunteer opportunities using PHLEX
https://berkeleypublichealth.12twenty.com/Login

Complete academic departments and programs list (search by alphabet) can be found at www.berkeley.edu/academics/dept/a.shtml

Classes can be viewed at https://classes.berkeley.edu/

Basic need program: https://basicneeds.berkeley.edu/home
Useful Resources

Useful SPH resources for students:
- http://sph.berkeley.edu/current-students/student-resources

Useful campus resources:
- CalCentral is UC Berkeley’s online one-stop service center that allows students to manage class enrollment, billing, financial aid, and student records. This website combines multiple campus systems into one easy-to-use mobile friendly place. Check campus email, calendar, academic progress, financial aid, enrollment information, and more.
  https://calcentral.berkeley.edu
- Cal Student Central is the physical one-stop student services center located in 120 Sproul Hall where students can find answers to questions regarding financial aid, fees and billing, payments, disbursements, registration and enrollment in one convenient location. Visit studentcentral.berkeley.edu for quick answers to top questions. If you need further assistance, stop by 120 Sproul Hall, Monday - Friday, 9 a.m. - 4 p.m.
  http://studentcentral.berkeley.edu/
- www.berkeley.edu/visitors/contacts.html

Center for Public Health Practice & Leadership:
- https://publichealth.berkeley.edu/student-life/career-and-leadership-development/internships/

Registrar’s Office (Academic & student calendars, fees, establishing legal residency):
http://registrar.berkeley.edu/
https://registrar.berkeley.edu/tuition-fees-residency/residency-for-tuition-purposes/residency-requirements-graduate-students/

Graduate Division: www.grad.berkeley.edu
- Guide to Graduate Policy: www.grad.berkeley.edu/policies/guide.shtml
- What do you Need to know about being a GSI, GSR, Reader or Tutor http://www.grad.berkeley.edu/policies/pdf/apptknow.pdf
- Degrees FAQ: www.grad.berkeley.edu/policies/faq.shtml
- Fees: www.grad.berkeley.edu/admissions/cost_fees.shtml
- Fellowship Office: www.grad.berkeley.edu/financial/fellowships_office.shtml
- Information on GSI/GSR/Reader/Tutor appointments: www.grad.berkeley.edu/policies/pdf/apptknow.pdf
- Graduate Diversity Program: http://www.grad.berkeley.edu/diversity/diversity.shtml
- Financial Aid Office: http://students.berkeley.edu/finaid/
- Disabilities Service: http://dsp.berkeley.edu
- University Health Services at UCTang Center: http://uhs.berkeley.edu/
- GSI Teaching and Resource Center: http://gsi.berkeley.edu/
- Housing: www.housing.berkeley.edu/livingatcal/graduatestudents.html
- Basic Needs program: https://basicneeds.berkeley.edu/home
# Faculty Advisor List

## 2021 – 2022 IDI PhD Program

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Email</th>
<th>Faculty Advisor, Lab</th>
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</thead>
<tbody>
<tr>
<td><strong>IDI 1st Year Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carolina Agudelo</td>
<td><a href="mailto:carolinaagudelo@berkeley.edu">carolinaagudelo@berkeley.edu</a></td>
<td>Dr. Harris</td>
</tr>
<tr>
<td>Isabel Lamb-Echegaray</td>
<td><a href="mailto:isabel.lamb@berkeley.edu">isabel.lamb@berkeley.edu</a></td>
<td>Dr. Harris</td>
</tr>
<tr>
<td><strong>IDI 2nd Year Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elias Duarte</td>
<td><a href="mailto:emd@berkeley.edu">emd@berkeley.edu</a></td>
<td>Dr. Harris, Harris lab</td>
</tr>
<tr>
<td>Abigail Kane</td>
<td><a href="mailto:abigail_kane@berkeley.edu">abigail_kane@berkeley.edu</a></td>
<td>Dr. Rutishauser, UCSF, Dr. Harris, UCB</td>
</tr>
<tr>
<td>Claire Mastrangelo</td>
<td><a href="mailto:claire.mastrangelo@berkeley.edu">claire.mastrangelo@berkeley.edu</a></td>
<td>Dr. Riley, Riley lab</td>
</tr>
<tr>
<td><strong>IDI 3rd Year Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eric Jedel</td>
<td><a href="mailto:ericjedel@berkeley.edu">ericjedel@berkeley.edu</a></td>
<td>Dr. Fleiszig, Fleiszig Lab</td>
</tr>
<tr>
<td>Kishen Patel</td>
<td><a href="mailto:kishen.patel@berkeley.edu">kishen.patel@berkeley.edu</a></td>
<td>Dr. Seed, Seed Lab</td>
</tr>
<tr>
<td>Reinaldo Mercado-Hernandez</td>
<td><a href="mailto:reinaldo@berkeley.edu">reinaldo@berkeley.edu</a></td>
<td>Dr. Harris, Harris Lab</td>
</tr>
<tr>
<td><strong>IDI 4th Year Students</strong></td>
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<td></td>
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<tr>
<td>Cuong Tran</td>
<td><a href="mailto:cuongt3@berkeley.edu">cuongt3@berkeley.edu</a></td>
<td>Dr. Welch, Welch Lab</td>
</tr>
<tr>
<td>Joanna Vinden</td>
<td><a href="mailto:joanna_vinden@berkeley.edu">joanna_vinden@berkeley.edu</a></td>
<td>Dr. Greenhouse Lab, UCSF</td>
</tr>
<tr>
<td>Marcus Wong</td>
<td><a href="mailto:mpwong@berkeley.edu">mpwong@berkeley.edu</a></td>
<td>Dr. Harris, Harris Lab</td>
</tr>
<tr>
<td><strong>RIDI 5th Year Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicholas Lo</td>
<td><a href="mailto:nicholas.lo@berkeley.edu">nicholas.lo@berkeley.edu</a></td>
<td>Dr. Harris, Harris Lab</td>
</tr>
<tr>
<td><strong>IDI 6th Year Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perri Callaway</td>
<td><a href="mailto:perricallaway@berkeley.edu">perricallaway@berkeley.edu</a></td>
<td>Dr. Harris at UCB, Dr. Feeney, Feeney Lab UCSF</td>
</tr>
</tbody>
</table>
### Faculty Advisor List
#### 2021 – 2022 IDV MPH Program

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Email</th>
<th>Faculty Advisor</th>
<th>Office</th>
</tr>
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<tbody>
<tr>
<td>Nayri Alajaji</td>
<td><a href="mailto:nea24@berkeley.edu">nea24@berkeley.edu</a></td>
<td>Dr. Miller</td>
<td>5321-14 BWW, By appointment</td>
</tr>
<tr>
<td>Yuzin Arias Gonzalez</td>
<td><a href="mailto:yuzinarias@berkeley.edu">yuzinarias@berkeley.edu</a></td>
<td>Dr. Liu</td>
<td>326 Barker Hall</td>
</tr>
<tr>
<td>Momoh Bona</td>
<td><a href="mailto:momoh_bona@berkeley.edu">momoh_bona@berkeley.edu</a></td>
<td>Dr. Riley</td>
<td>500D Li Ka Shing</td>
</tr>
<tr>
<td>Melissa Carlson</td>
<td><a href="mailto:melissa.carlson@berkeley.edu">melissa.carlson@berkeley.edu</a></td>
<td>Dr. Riley</td>
<td>500D Li Ka Shing</td>
</tr>
<tr>
<td>Samuel Holland</td>
<td><a href="mailto:samuel_holland@berkeley.edu">samuel_holland@berkeley.edu</a></td>
<td>Dr. Swartzberg</td>
<td>570 U Hall</td>
</tr>
<tr>
<td>Lian Ching Yun Hsiao</td>
<td><a href="mailto:liancyhsiao@berkeley.edu">liancyhsiao@berkeley.edu</a></td>
<td>Dr. Wolf</td>
<td>81D Koshland Hall</td>
</tr>
<tr>
<td>Shradha-Nicole Iyer</td>
<td><a href="mailto:shradhaiyer@berkeley.edu">shradhaiyer@berkeley.edu</a></td>
<td>Dr. Swartzberg</td>
<td>570 U Hall</td>
</tr>
<tr>
<td>Brandon Ja</td>
<td>brandon <a href="mailto:Ja@berkeley.edu">Ja@berkeley.edu</a></td>
<td>Dr. Swartzberg</td>
<td>570 U Hall</td>
</tr>
<tr>
<td>Ala Koreitem</td>
<td><a href="mailto:ala.koreitem@berkeley.edu">ala.koreitem@berkeley.edu</a></td>
<td>Dr. Liu</td>
<td>326 Barker Hall</td>
</tr>
<tr>
<td>Kathryn Lin</td>
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</table>

**IDV 4+1 Students**

<table>
<thead>
<tr>
<th>Student Name</th>
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<th>Faculty Advisor</th>
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</table>
# Faculty Advisor List
## 2021 – 2022 IDV MPH Program

### 2nd Year IDV MPH Students

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Brandon Ja          Ala Koreitem          Kathryn Lin          Luis Lopez          Aliya Mahmoud          Korie McManus          Annette Mercedes

Shannon Mohler          Renee Padiernos          Rushlenne Pascual          Milciela Reyes          Samantha Sears          Mayland Treat          Danni Xuyang
2nd Year Infectious Disease and Vaccinology (IDV) MPH Students 2021-2022

Clarissa Aquino, Adrian Cornejo, Zebediah-Jo Eskman, Victor Guillera, Ashika John, Brooke Kazama, Gia Park, Anna Parker, Abi Shotland, Nikolina Walas, Colin Warnes, Rowan Wells-Edwards
Mitchell Leus

Maya Rankupalli