

PhD in Global Health Sciences



Student Handbook 202**5**

Table of Contents

| Introduction | 6 |
|--|----|
| Welcome | 6 |
| Mission and Objectives | 6 |
| Institute for Global Health Sciences Education | 7 |
| PhD in Global Health Sciences Program Contacts | 7 |
| Mission Hall | 7 |
| Faculty | 7 |
| Core Faculty | 7 |
| IGHS Affiliates | 8 |
| Academic Advisor | 8 |
| Research Advisor | 8 |
| Getting Your Bearings | 9 |
| Academic and Administrative Calendar | 9 |
| MyAccess | 9 |
| Student Portal | 9 |
| Student ID | 9 |
| Student Printing Policy | 9 |
| Encryption | 10 |
| Housing | 10 |
| Student Health Insurance | 10 |
| Student Mental Health & Wellbeing | 10 |
| Statement of Legal Residence | 11 |
| Student Success and Wellness | 11 |
| Student Travel | 12 |
| Registration and Course Enrollment | 12 |
| Registration | 12 |
| Full-Time Status | 12 |
| Part-Time Study | 12 |
| Registration in absentia | 13 |
| Filing Fee Status | 13 |
| Filing a Study List | 14 |

| Study List Changes | 14 |
|---|-----------|
| Policy on Dropping Courses Outside of IGHS | 14 |
| Academic Residence | 15 |
| Leave of Absence or Withdrawal | 15 |
| PhD Student Leave Policy | 15 |
| Readmission | 16 |
| Finances and Funding | 16 |
| Student Fees | 16 |
| California Residency and Nonresident Supplemental Tuition | 16 |
| Employment | 16 |
| Reduced Fee Enrollment for UCSF Employees | 16 |
| Graduate Division Internal Fellowships and Awards | 17 |
| Professional Conference and Research Travel Funds | 17 |
| Progression through the Doctoral Program | 17 |
| Individual Education Plan and Progress Report | 18 |
| Unit Requirements | 18 |
| Grading Policy | 18 |
| IGHS Policy on Use of AI | 18 |
| Coursework | 22 |
| Core Curriculum | 22 |
| Global Health Proseminar Series | 23 |
| Doctoral Seminar | 23 |
| Electives | 24 |
| Intercampus Exchange Program, San Francisco Consortium, UCSF-Stanford E | xchange24 |
| Sample Core Curriculum Schedule | 26 |
| Course Waiver Policy for Core Courses | 27 |
| Independent Study | 27 |
| Research Rotations | 27 |
| Research Rotation Approval Process | 29 |
| Earning Academic Credit for Research Rotations | 29 |
| Evaluation and Dissemination of Research Rotation Results/Products | 29 |
| Teaching Residencies | 30 |
| Earning Academic Credit for Teaching Residency | 30 |

| Evaluation of Teaching Residency | 30 |
|--|----|
| Teaching Resources | 30 |
| Doctoral Committee | 30 |
| Doctoral Committee Roles/Responsibilities | 30 |
| Doctoral Committee Role in Qualifying Examination and Dissertation Defense | 31 |
| Qualifying Examination Chair and Dissertation Chair | 31 |
| Doctoral Committee Approval Process | 31 |
| Application for Qualifying Examination | 31 |
| Qualifying Examination | 32 |
| Program Guidelines for the Qualifying Examination | 32 |
| Written Examination | 33 |
| Oral Examination | 33 |
| Research Proposal and Dissertation Proposal | 33 |
| Oral Defense | 35 |
| Oral Defense Attendance | 35 |
| Oral Defense Evaluation and Report on Qualifying Examination | 35 |
| Advancement to Candidacy | 36 |
| The Dissertation | 37 |
| Written Product | 37 |
| Introduction Chapter | 37 |
| Research Chapters | 38 |
| Conclusion Chapter | 38 |
| Submission to a Peer-reviewed Journal | 38 |
| Requirements if Research is Collaborative | 38 |
| Requirements if Research is Already Published | 38 |
| Ethical Review/Institutional Review Board (IRB) Approvals | 39 |
| Writing Quality | 39 |
| Public Presentation and Dissertation Defense | 39 |
| Public Presentation | 39 |
| Dissertation Defense | 39 |
| Scheduling | 40 |
| The Sign-off | 40 |
| Filing/Submitting the Dissertation | 40 |

| Getting It Done | 41 |
|---|----|
| Graduation and Program End | 41 |
| Graduation Application | 41 |
| Required Surveys | 41 |
| Graduate Division Commencement Ceremony | 41 |
| Planning for After Graduation | 42 |
| Degree Conferral and Diploma | 42 |
| UCSF Email Access after Graduating | 42 |
| Policies and Procedures | 43 |
| Policy on Student Progress: Requirements, Notification, Remediation, and Review | 43 |
| Policy on Academic Misconduct | 45 |
| Appendix I: IGHS PhD Individual Education Plan and Progress Report | 47 |
| Appendix II: Independent Study Project Proposal Form | 54 |
| Appendix III: Research Rotation Proposal Form | 56 |
| Appendix IV: Teaching Residency Proposal Form | 58 |
| Appendix V: Research Proposal Template | 60 |
| Appendix VI: Dissertation Prospectus Template | 61 |
| Appendix VII: Dissertation Written Product | 62 |
| Appendix VIII: Plagiarism versus Proper Citation | 63 |

Introduction

Welcome

We are pleased to welcome you to the Doctor of Philosophy (PhD) program at the Institute for Global Health Sciences (IGHS) at the University of California, San Francisco (UCSF). The PhD in Global Health Sciences provides students with a deep knowledge of important global health issues, as well as a high level of skill in health research methodology, practice, and professionalism. This interdisciplinary program trains doctoral students on methods and modes of inquiry drawn from public health, public policy, economics, development studies, implementation science, and the social sciences to explore and address global health problems. Graduates gain comprehensive skills, training, and experience in global health research and practice.

Mission and Objectives

UCSF's Institute for Global Health Sciences (IGHS) is dedicated to improving health and reducing the burden of disease in the world's most vulnerable populations. IGHS integrates the university's expertise across the health, social, and biological sciences, and focuses that expertise on pressing issues in global health. Faculty and staff of IGHS work with partners in countries throughout the world to achieve these aims.

A key responsibility for a university is to educate the next generation of leaders. IGHS seeks to promote health equity through the provision of trainee-focused, interdisciplinary health sciences education. The IGHS doctoral program prepares graduates to optimize their impact in the field of global health.

IGHS Education directs effort and resources to:

- teach through focused training and mentorship;
- foster and coordinate the development of cross-campus global health education initiatives: and
- provide expertise to UCSF leaders and the community on global health education issues.

Institute for Global Health Sciences Education

PhD in Global Health Sciences Program Contacts

Elizabeth Fair, PhD, MPH PhD Program Director

IGHS Director of Education Professor of Medicine

elizabeth.fair@ucsf.edu

Ali Mirzazadeh, PhD, MD, MPH Associate PhD Program Director

Associate Professor of Epidemiology + Biostatistics

ali.mirzazadeh@ucsf.edu

Minerva Lee Education Administrator

minerva.lee@ucsf.edu

Darlene Mergillano, MS Graduate Affairs Officer

darlene.mergillano@ucsf.edu

Mission Hall

IGHS and the PhD program are housed in Mission Hall at UCSF's Mission Bay Campus. The first floor of Mission Hall is accessible to all students and contains classrooms, the student hub/study space, and the student services office.

The third floor houses employees of IGHS and is designed with open-concept work stations. PhD students have dedicated workspace and access to the shared kitchen and printers. Students are asked to act and dress in accordance with the office space, speak quietly in public areas, and take phone calls and group conversations into the "focus" or "huddle" rooms.

All occupants of Mission Hall, including students, are required to display their UCSF badge at all times when entering the building, for security purposes.

Faculty

An extensive network of faculty, researchers, and global health practitioners works with IGHS to teach, advise, and mentor students in the PhD program. Many of the faculty and mentors are leaders in their fields. They come from the UCSF Schools of Medicine, Pharmacy, Dentistry and Nursing, as well as from other UC campuses, Bay Area universities, and the wider global health community.

Core Faculty

Core faculty members teach the proseminar courses for the PhD program and play key roles in mentoring and advising the students. The <u>core faculty</u> list is available on the IGHS website.

IGHS Affiliates

The IGHS Affiliate Program engages UCSF faculty and staff across the campus who are conducting global health research. Students can work with <u>IGHS Faculty Affiliates</u> during their time in the program.

Academic Advisor

At the start of the program, students are matched with an academic advisor who has the relevant background to guide them during their first years in the program. The academic advisor must have a PhD or equivalent doctorate. Academic advisors help guide students to clarify their research interests, prioritize courses and training areas to match their goals, and identify important professional development strategies. Academic advisors provide critical oversight of academic progress while the student is completing coursework (e.g., courses, electives, research rotations, professional conferences), identifying other faculty to meet with, and seeking possible funding opportunities. Students are required to meet with their academic advisor at least once each quarter to discuss their academic plan and to receive general academic and professional advice and guidance. The academic advisor serves as chair of the oral qualifying exam.

Research Advisor

As students identify their areas of research interest, they will choose a faculty member to serve as their research advisor and oversee their doctoral research. The research advisor must have an MD, PhD, or equivalent doctorate and should meet regularly (~2x/month) with the student.

The research advisor's role is to help the student:

- Navigate the entire process of dissertation research.
 - Identify a dissertation topic, i.e., define a specific, manageable set of research questions that would coincide with the three publishable papers required to complete the PhD program.
 - Oversee dissertation research, help the student maintain appropriate degree progression, solve problems, and think seriously about the substantive questions in their research area.
 - o Identify other doctoral committee members, i.e., individuals with appropriate expertise to oversee and advise the student on their dissertation research.
- Provide funding or assist with obtaining funding to support the student's stipend and tuition.
- Mentor students as they plan for the next phase of their career. Some examples include guiding students as they consider professional development goals, post-doctoral programs, or other next steps; networking with researchers in the field; and attending conferences.
- Serve as chair of the dissertation defense.

Getting Your Bearings

Academic and Administrative Calendar

UCSF's academic calendar operates on the quarter system. The calendar is available at http://registrar.ucsf.edu/academic-calendar. Some required courses taken in the PhD program, particularly those offered in the fall quarter, are scheduled on slightly different academic calendars, which may result in different (sometimes earlier) start and end dates. Students should refer to course syllabi for specific course dates.

MyAccess

MyAccess is a single sign-on service used for UCSF online systems and services, including the student portal, the financial aid portal, the Collaborative Learning Environment (CLE), wireless internet access, and the Virtual Private Network (VPN). MyAccess is available at https://myaccess.ucsf.edu. At matriculation, each student will receive instructions and a username and password for MyAccess.

MyAccess requires multi-factor authentication with **Palo Alto GlobalProtect VPN**, which provides an extra layer of protection to ensure the security of logins beyond a password. Cyber-attacks are increasing, and the **Palo Alto GlobalProtect VPN** application (available on Google Play and Apple Store) is an important way UCSF protects logins from misuse. You will only be prompted by **Palo Alto GlobalProtect VPN** once per MyAccess session, or every 16 hours. Visit the <u>Palo Alto GlobalProtect VPN</u> for more information and training. If you need help, please call the IT Service Desk at 415.514.4100, or chat with an agent at https://ucsf.service-now.com/ucsfit.

Student Portal

The <u>student portal</u> provides access to important information, including fees, registration holds, grades, and course enrollments (i.e., study list filing).

Student ID

Student photo ID cards are required for daily access to campus buildings and activities. Student IDs are programmed with access into the upper floors of Mission Hall (via elevators and stairs), Mission Hall after hours, and student lounges and spaces across campus. The Office of the Registrar provides more details regarding how to-obtain an-ID-card.

In case of a lost or stolen ID card, the WeID <u>website</u> has replacement instructions. Students are responsible for costs associated with replacing their ID card.

Student Printing Policy

This policy outlines the guidelines and procedures for students to access free printing services, ensuring fair usage and availability to all students.

- 1. PhD Students may print up to 100 pages annually to the printer in MH-3412. Unused pages or balances do not roll over. Printing exceeding the free allocation will incur charges.
- 2. Printing is for coursework only when necessary; instead of printing, documents can be viewed and stored electronically. Personal, non-academic materials are not permitted.
- 3. When printing is necessary, two-sided, black and white printing is strongly encouraged; single-sided and/or color printing should be used judiciously.
- 4. Misuse of the service, such as bulk printing for commercial purposes, is prohibited.

Encryption

All students must encrypt and protect personal laptop computers prior to orientation by following instructions to encrypt your computer not supported by ITFS from UCSF Information
Technology (IT). Before beginning the process, students must ensure their laptop has enough memory and meets the minimum requirements. For help with the encryption process or other IT questions, the UCSF IT Service Desk is available 24 hours a day, 7 days a week by phone, email, or chat.

Housing

On-campus housing at UCSF is offered via competitive lottery. Campus Life Services provides information about living on campus at http://campuslifeservices.ucsf.edu/housing. Students are not guaranteed on-campus housing, and therefore are encouraged to explore off-campus housing options through non-university housing search methods.

The Graduate Division hosts a housing information listserv moderated by members of the Graduate Students' Association. Information and listserv instructions are at https://graduate.ucsf.edu/housing-and-commuting.

Student Health Insurance

All registered students are automatically enrolled in the UC Student Health Insurance Plan (UC SHIP). If students have a health insurance plan that meets a minimum benefits level, they are eligible to waive the UC SHIP coverage. Students who opt for an insurance fee waiver must notify the graduate affairs officer so that fee adjustments are accurately recorded.

Student health services information: https://registrar.ucsf.edu/new-students/studenthealth
Enrollment and eligibility: https://studenthealth.ucsf.edu/enrollment-eligibility-premium
Deadlines and processes for waiving UC SHIP: https://studenthealth.ucsf.edu/insurance-waiver

Student Mental Health & Wellbeing

UCSF Student Mental Health & Wellbeing offers comprehensive primary care to all students, as well as mental health, counselling, psychiatry, and wellness services and resources. Information can be found: https://studentmentalhealth.ucsf.edu/.

For after-hours support, including evenings and weekends, please call 415-476-1281 (option 2) to speak with a mental health clinician.

Statement of Legal Residence

To establish California residence, at least 366 days prior to the term for which you request classification as a California resident, you must have established a primary and permanent domicile in California and relinquished all ties to your past place(s) of residence. You also must be a U.S. citizen or permanent resident, or you must have an immigration status that allows you to establish California residence.

New students submit a Statement of Legal Residence in the "CA Residency" tab in the student portal. UCSF will review the Statement of Legal Residence information to determine new students' California residency for tuition purposes. Students will not be able to enroll in courses until they submit the Statement of Legal Residence.

Student Success and Wellness

Success in graduate school requires care and attention to all aspects of student life: health and wellness, community, career development, personal and professional relationships, and security and safety. UCSF is committed to providing a full range of resources and services to help students succeed. The Student Success website has information about these resources.

<u>Student Disability Services (SDS)</u> is available to assist students in obtaining the services and accommodations they require to ensure equal access to all aspects of the UCSF experience. Early communication with the relevant administrators is critical to successful partnership in arranging accommodations. SDS will coordinate communications and procedures with students and the graduate faculty and programs.

Students are encouraged to register with SDS as soon as they accept admission into the program. Although students can start the registration process at any time, accommodations are not provided retroactively, so being timely in requesting accommodation is extremely important, especially at the beginning of the school year when SDS is particularly busy. Students are not eligible to receive accommodations until the registration process is complete.

Students granted accommodations must discuss their accommodation needs directly with the instructors in the classes in which they wish to apply the accommodation. Students are advised to discuss their approved accommodation needs with their instructors at the start of the quarter, or within a reasonable amount time in advance of a scheduled activity (exam, quiz, etc.). Ideally, students should make requests no less than 2 weeks before a scheduled activity. Requests made within 24 hours of a scheduled activity may be denied. Faculty are only able to make accommodations based on the official letter provided by SDS.

More information is at the SDS website.

Student Travel

As a reminder, all UCSF-related student travel is guided by the following policies:

- International Travel Guidelines: Students, Residents, and Fellows
- UCSF Travel Guidance

Registration and Course Enrollment

Registration

Students are required to <u>pay fees</u> and <u>file a study list</u> to be considered a registered student. The Office of the Registrar sends students an email notice when registration is open each quarter (approximately six weeks before the quarter begins). The Office of the Registrar provides detailed instructions about how to register with accompanying registration deadlines.

Full-Time Status

A load of 8 to 12 units is considered full-time study for graduate students. Students may enroll in fewer than 8 units and still be considered full-time depending on the kind of activity the student is engaged in during the quarter. A doctoral student who is preparing for the qualifying examination, for example, may be registered in a total of 4 units and be considered full-time because ample time must be devoted to preparation for the exam. A student engaged in writing the dissertation may register for only one course (i.e., GHS 250 for 8 units) and be considered full-time.

Part-Time Study

A student who is unable to pursue full-time study for reasons of occupation, family responsibilities, or health concerns may petition for classification as a part-time student.

Classification as a part-time student is subject to approval by the program director and the dean of graduate studies.

- Part-time status is granted for a period of one academic year, subject to renewal each year prior to the fall quarter. An approved petition is required for each renewal.
- Part-time students cannot exceed a total of six units on the study list each quarter.
- Doctoral students in-candidacy may not be classified as part-time.
- Prior to advancement to candidacy, doctoral students who are classified as part-time will
 accrue time to the degree under the five-year allotment of degree policy at one-half the
 rate of full-time students for those quarters in which they were approved for part-time
 study.
- Fees for part-time students are reduced in accordance with UC policies on part-time study, i.e., one-half the educational fee and one-half the nonresident tuition.

Petitions for classification as a part-time student are available through the Office of the

Registrar. The program director will review all petitions for part-time study and approve only if it is appropriate for the student.

Registration in absentia

Students whose research or study requires them to remain outside of California throughout the quarter may register *in absentia*. When students register *in absentia*, their registration and educational fees are reduced by 85%. In order to receive the fee reduction, students must file a registration in absentia application for **each quarter** *in absentia* by the beginning of each quarter. Also, to qualify for registration *in absentia*, students must have advanced to candidacy and must have passed the qualifying examinations by the time the *in absentia* status would begin.

Students registered *in absentia* are expected to maintain regular meetings with their doctoral committee and program director, which at minimum should occur quarterly.

The graduate dean may grant *in absentia* registration status for **up to two years for doctoral students**. Longer periods may be granted at the discretion of the graduate dean.

The student health insurance fee is assessed for each quarter *in absentia*, unless a waiver for this fee has been granted by Student Mental Health & Wellbeing; however, an annual student health waiver application fee will be charged. Further, the appropriate student government fee will be assessed each quarter students are registered *in absentia*.

Filing Fee Status

<u>Filing Fee</u> is an optional method of registration for the quarter in which a student plans to complete the degree. Filing fee status reduces registration fees to approximately one half of the university registration fee. Students are eligible to apply for filing fee status if they have:

- 1. completed all requirements for the degree, with the exception of filing the dissertation;
- 2. completed a first draft of their dissertation and confirmed with all committee members that additional research is not necessary:
- 3. received no more than one incomplete grade; and
- 4. registered for at least three quarters after advancement to candidacy.

Students on filing fee status should not register or file a study list. They do not have access to UCSF facilities (including the UCSF Library) and are not eligible for student academic appointments (e.g., GSR, TA, or tutor).

Health insurance is not covered for students on filing fee status because they are no longer considered fully enrolled students. However, students may continue coverage in the UC SHIP by enrolling in the voluntary plan within the first 30 days of the quarter. Students should contact the insurance coordinator at Student Mental Health & Wellbeing (415-476-1283) during the quarter **before** they go on filing fee status.

The <u>filing fee application</u> has details regarding the effects and costs of filing fee status and the application process. Students should provide the graduate student affairs officer with a copy of the filing fee application prior to submitting it to the Graduate Division.

Filing a Study List

Each quarter, students enroll in courses by <u>filing a study list</u> by the posted <u>deadlines</u>. Students will be assessed a late fee of \$50 if they do not meet the minimum enrollment requirement deadline. The graduate affairs officer will send students a registration reminder each quarter, and therefore any late fee incurred will not be paid by the program.

Students need to clear all <u>holds</u> in order to complete their study list filing. The student portal provides hold details, including contact information for the office that placed the hold.

Several of the required courses for the PhD program are offered through the <u>Implementation Science (ImS)</u> and <u>Training in Clinical Research (TICR)</u> Programs housed in the Department of Epidemiology and Biostatistics. These courses require enrollment via the study list and a separate application process. Students will work with the graduate affairs officer to complete these course applications in order to enroll in the courses.

Students must select the letter grade option for all required core courses except for the doctoral seminar, which is the only required core course graded as satisfactory/unsatisfactory (S/U).

Study List Changes

After study list filing opens, students can add courses, drop courses, and, for some courses, change the instructor, units, or grading option. Students can make these changes online on the "Study List" tab in the student portal until study list filing closes. Study list filing dates are here.

To change the study list after the study list filing period closes, students can initiate a request online on the "Study List" tab in the student portal. Requests will be routed electronically to the graduate affairs officer and program director for approval.

Policy on Dropping Courses Outside of IGHS

Students will take <u>Training in Clinical Research (TICR)</u> and <u>Implementation Science (IMS)</u> courses throughout their time in the IGHS PhD program. These courses are housed in the Department of Epidemiology and Biostatistics and require a specific application process and fee (funded by IGHS) as part of the registration process. **If a student wishes to drop a TICR/IMS course after submitting an application, they must first contact the IGHS graduate affairs officer and program directors for approval.**

The IMS course <u>drop policy</u> requires that written communication be sent **more than 10 days prior to the start of the course** in order for the IGHS program to receive a refund.

Per TICR policy, "The TICR Program will provide a full refund minus a \$75 withdrawal fee if the TICR Program is notified of course withdrawals within 24 hours of the 3rd lecture in the course."

Requests to drop courses later than the above timeframes *may not be approved* by program directors; therefore, please contact the program directors for extenuating circumstances and provide written documentation to support your request to drop the course after the deadline.

Academic Residence

Doctoral students are required to spend 6 quarters in residence during their first 2 years in the program. In addition, students must register for a minimum of 3 quarters after advancement to candidacy.

Leave of Absence or Withdrawal

IGHS follows the <u>registration policies</u> outlined by the Graduate Division about leaves of absence and withdrawal.

If students do not register, they must petition for either a leave of absence or a withdrawal. Students shall work with the graduate affairs officer, the program director, and their academic advisor to ensure that any leave of absence is minimally disruptive to their academic progression. Students should be aware that leaves, other than those covered by Human Resource policies, must be approved by the program director and may impact funding opportunities.

A general leave of absence may be granted for up to 1 academic year and is subject to approval by the program director and the dean of the Graduate Division. After 1 year has passed, if students want to remain on leave, they must submit a request for an extended leave, which the program director must approve. Extensions are limited to no more than 1 additional academic year. No further extension can be granted and students must return to registered status or forfeit their place in the program.

Academic or funding-related issues may not be grounds for a leave of absence and must be addressed in consultation with the graduate affairs officer and the program director.

Students may request a leave of absence at any time but should have some idea of when they intend to return to graduate study. Approval of the petition for a leave of absence implies that the student will be readmitted to the graduate program. Students should petition for withdrawal if they have no intention of returning to UCSF.

PhD Student Leave Policy

Students should work with the graduate student affairs officer, advisors, and program director to ensure that any leave of absence is minimally disruptive to their academic progression. Policies

on Parental Leave, Medical/Family Leave, and Unpaid Leave are detailed in the Graduate Division's PhD Student Leaves Policy.

Readmission

IGHS follows the <u>registration policies</u> outlined by the Graduate Division about readmission. A student on leave of absence must petition for readmission in order to register again as a graduate student. The petition for readmission is available online from the <u>Office of the Registrar</u>. Readmission requires the approval of the program director and the dean of the Graduate Division. The student must pay a non-refundable \$40 fee when filing the readmission form. Students must observe the registrar's deadlines for filing a petition for readmission.

Finances and Funding

Student Fees

Student fees are updated annually by the Office of the Registrar.

California Residency and Nonresident Supplemental Tuition

In the first year, nonresident supplemental tuition is applied to students who are not residents of California, including international students. Students who are a U.S. citizen, permanent resident, or with an immigration status that allows the student to establish California residence are required to establish California residency as soon as possible in order to avoid paying the nonresident supplemental tuition beyond their first year of studies. Eligible students who fail to establish California residency during the first year of the program will be responsible for paying the nonresident supplemental tuition in subsequent years.

The annual nonresident tuition will be reduced to \$0 for a maximum of three calendar years for any graduate academic doctoral students who advance to candidacy, including international students. Eligibility begins the first academic term following advancement to candidacy. Students who continue to be enrolled or who re-enroll after receiving reduced fees for 3 years will be charged full nonresident tuition.

Employment

Students may not work more than 20 hours per week during periods of enrollment in the program. Employment of more than 20 hours per week is permitted during the summer months and during winter and spring breaks.

Reduced Fee Enrollment for UCSF Employees

A <u>regular status</u> University of California employee who meets the admission requirements of the University is eligible for a two-thirds reduction of both the Student Services Fee and Tuition when enrolled in regular session courses of up to **9 units or 3 courses** per quarter, whichever provides the greater benefit to the employee. Eligible students should review the <u>policies and limitations</u> of <u>reduced fee enrollment</u> and notify the graduate affairs officer before applying for

reduced fee enrollment.

Applications for <u>reduced fee enrollment</u> must be filed with the Office of the Registrar by the published deadline and before paying fees. A signature from Human Resources is required.

Graduate Division Internal Fellowships and Awards

The Graduate Division offers many <u>internal fellowships and awards</u> to eligible PhD students. Students are nominated for these annual awards each spring by the program leadership and faculty.

Professional Conference and Research Travel Funds

Students can submit a request for travel funds via the PhD Student Travel Request Form. The purpose of this fund is to support educational and research opportunities for full-time students in the Global Health Sciences PhD program. This fund can be used to assist students in participating in enriching educational activities or academically-focused events such as organized conferences to participate or to present their independent work; attending a course outside of UCSF; supplementary stipends to enable participation in a fellowship or educational opportunity; travel to defend the dissertation at UCSF if the student is residing outside the US.

Students who plan to attend a professional conference while registered at UCSF may also be eligible for travel funds through the <u>Graduate Division Travel Award</u>.

Progression through the Doctoral Program

The program is structured as a 4-year degree. Students spend the first 2 years in residence at the Mission Bay Campus, completing coursework and engaging in research rotations and teaching residencies with UCSF faculty. After completing the core curriculum and passing the written and oral qualifying examinations, students spend the next 2 years focused on conducting their dissertation research and engaging in other research and professional activities.

Doctoral students work closely with teaching faculty, academic and research advisors, and program leaders to receive one-on-one mentoring as they progress through coursework, qualifying exams, and dissertation research and writing.

Coursework

- Complete core curriculum
 - » Global health proseminars
 - » Research methods
 - » Doctoral seminar
- Complete research rotations
- Participate in teaching residencies

Advance to Candidacy

- Form doctoral committee
- Complete qualifying examination
- Defend dissertation proposal

Dissertation Research

- Conduct original research
- Write dissertation
- Present and defend dissertation

Year 1 Year 4

Individual Education Plan and Progress Report

To facilitate timely progress in the program, all students and their academic advisors are required to submit an **Individual Education Plan and Progress Report** annually (<u>Appendix I</u>). In the summer quarter, the graduate affairs officer sends a report template to each student. The student completes the report with guidance from the academic advisor during fall quarter and submits it to the program director by October 1. Students who have advanced to candidacy complete the section of this report for the Candidacy Phase. The graduate affairs officer documents the completion of program requirements and maintains the student's files. Any deficiency or failure to meet the standards of the program are discussed with the student and confirmed in writing by the program director.

Unit Requirements

Students enroll in a minimum of 8 units per quarter to be considered a full-time student prior to advancement to candidacy. Prior to graduation, students must complete a minimum of 48 units overall, of which a minimum of 38 units must be taken for a letter grade.

Grading Policy

The PhD in Global Health Sciences adheres to the Graduate Division's grading policies. Information on course grading and optional grades is at https://graduate.ucsf.edu/courses-and-grading.

All required core courses must be taken for a letter grade, unless the course is graded only on a satisfactory/unsatisfactory (S/U) basis (e.g., doctoral seminar, research rotations).

IGHS Policy on Use of Al

1. Principles of Al use

Generative AI, such as ChatGPT, Bard, and Bing refers to computer systems capable of

creating content—text, images, other media—in response to natural language inputs. With its growing presence, Al is poised to transform many academic and scientific disciplines. To engage with Al safely and effectively in global health education and practice, students first require proficiency in the subject area, must accept the responsibility of verifying accurate output of Al models, and should follow processes for documentation of Al use, when appropriate and as instructed.

The use of AI by students in the IGHS education programs must also adhere to University of California and UCSF policies and procedures. This includes those around data security. Data classified as P3 or P4 cannot be used with AI systems not approved and monitored by UCSF. This applies to all MS capstone and PhD Dissertation data that has not been made publicly available at the time of AI use. See https://data.ucsf.edu/ssa/step-13-understand-ucsf- data-classification-types-p1-p2-p3-and-p4.

Proficiency: Learning is not simply memorization of facts—it is building flexible knowledge structures that can be called upon to solve problems and evaluate possible solutions. All systems represent one source of possible solutions, but to evaluate the value of an Al's proposed solution, it is necessary to have adequate competency in that domain. Furthermore, as Al systems are currently based on predictive text — that which has been written before, they are subject to replicating sexist, racist, and colonial theories and biases. Users should be well-aware of these limitations and review all output for these underlying issues at the risk of perpetuating them oneself.

Verification: Students must take full responsibility for Al-generated materials as if they had produced them themselves. Facts must be true, and assertions must follow from those facts. Generative Al is well-known to output incorrect, misleading, or entirely fabricated information ('hallucinations'). This includes creating and citing sources that do not exist to justify statements. This limitation is especially important in health-related education, where knowledge forms the basis for decisions that can impact patient or population health.

Documentation: All ideas that are not originally one's own have a source, and that source generally must be attributed. (**See Classification Levels of Allowed Use.**) As noted above, generative Al may invent sources. Documentation of Al use is always a best practice and may be required. When documentation is required, students are obligated to follow standard practices for documentation. (See **Appendix.**) The lack of documentation when Al is used will be considered an issue of Academic Misconduct and will be handled according to the program's policies and procedures.

2. Classification levels of allowed use of Al in assessments and deliverables The following classification scheme will be used for all course assessments and deliverables required for course completion:

| Assessments | Demonstrations of knowledge or skill, whether proctored or un-proctored, |
|--------------|---|
| | such as examinations, quizzes, final presentations, Capstones, |
| | Dissertations. |
| Deliverables | Written, oral, or audiovisual assignments or presentations such as |
| | assignments, problem sets, etc. Instructors may provide a blanket |
| | classification for all assessments or deliverables for a learning experience or |
| | provide separate classification for individual assessments or deliverables. |

If an assessment or deliverable does not have a classification provided, it is assumed to be classified **AI- Disallowed**. By submitting an assessment or deliverable for evaluation:

- Students assert that they have respected all specific requirements of the assigned work, in particular requirements for transparency and documentation of process, or have explained themselves where this was not possible.
- When use of AI is allowed, students assert that it accurately reflects the facts and that
 they have verified the facts, especially if they originate from generative AI resources.
 The presence of unverified facts and/or other issues in the writing when AI is used will
 be subject to deductions per standard grading practices.
- When use of Al is allowed and documentation is required, students assert that all sources that go beyond 'common knowledge' are suitably documented and verified.
 Common knowledge is what a knowledgeable reader can assess without requiring confirmation from a separate source.

Overview of AI Classifications

| AI-DISALLOWED | Any use is academic integrity violation | Example: exam |
|--------------------|---|---|
| AI-RESTRICTED | Restriction on type of AI resources or aspects of assessment allowed and documentation required | Example: journal club assignment |
| AI-DOCUMENTED | No restrictions on AI use but all use must be documented | Example: assisting in reducing word count to meet assignment requirements |
| AI- UNREGULATED | No restrictions on use and no documentation required | Example: email communication |

AI-DISALLOWED

Generative Al tools cannot be used in this assessment or deliverable. In such an assessment or deliverable, students must not use artificial intelligence (AI) to generate any materials or content in relation to the task. Use of AI will be considered an academic integrity violation and will trigger the Policy on Student Misconduct in Academic Studies. Examples of assessments or deliverables that might be classified AI-Disallowed may include, but are not limited to:

- Formal exams.
- · Assessments and quizzes.
- Any data classified as P3 or P4 under UCSF policy (outside of Versa)

AI-RESTRICTED

Generative AI tools are restricted for this assessment or deliverable and require documentation. In such an assessment or deliverable, students are restricted in either the types of AI tools that may be used, or on which aspects of the assignment AI may be employed. All use of AI must be appropriately acknowledged. (**See AI- Documented.**) The nature of the restrictions should be specified by the instructor. Examples of assessments or deliverables that might be classified **AI-Restricted** include, but not limited to:

- Journal article assignments where summarization is performed by AI, but assessment of strengths and limitations is generated by the student.
- Production of summaries of topics that provide a basis for further non-Al-assisted inquiry.
- Creating analytical plans for raw data and/or the interpretation of output.

AI-DOCUMENTED

Generative Al tools may be used in any manner for this assessment or deliverable but require documentation. In such an assessment or deliverable, any Al tools may be used on any aspect of the assignment, but all use of Al must be appropriately acknowledged. Examples of assessments or deliverables that might be classified Al- Documented include, but are not limited to:

- Assisting in the editing of prior written work for conciseness, language, and the like when the primary material has been originally written by the learner.
- Troubleshooting analytical code to help in the analysis of data source. Note: this does not include asking AI to construct analytical plans or interpret statistical output.
- Assignments whose goal is to develop skills in using Al-based services.

AI-UNREGULATED

Generative Al tools are not restricted for this assessment or deliverable and documentation of use is not required. In such an assessment or deliverable, any Al tools may be used to assist in any way, and it is not necessary to document or attest to their use. Note that Al products are increasingly integrated into standard software packages (e.g., Microsoft) to provide grammar and spellchecking, and these capabilities will likely increase. Current versions of such products do not require citation.

3. Safe and compliant use of Al

This policy is designed to apply to assessments and deliverables used in the pedagogical process, not as part of direct patient care or human subjects research. Most commercially available AI systems are not compliant with HIPAA or FERPA protections and entry of patient or student information (identified or de-identified) into such systems is a violation of UCSF policies and potentially a crime. Use of AI systems in patient care or research requires direct, positive

confirmation from a research mentor or director that such use is allowed and that the system is authorized to work with such information. The use of AI technology for research overseen by UCSF must be documented and approved prior to use.

4. References

- Sentient Syllabus Project
- UNESCO ChatGPT and artificial intelligence in higher education: quick start guide
- Monash University: Policy and practice guidance around acceptable and responsible use of AI technologies
- UCSF Data Protection and Large Language Models (requires MyAccess login)

5. Appendix

Standards for acknowledging use of generative AI, when such use is allowed. When assessments or deliverables are classified as AI-Restricted or AI-Documented, documentation as to the manner of AI use (if used) must be provided. Documentation may take the form of primary source citations, summary statements, or both. Instructors should specify which type of documentation is expected for the assessment or deliverable.

- Primary source citation
- Summary statement

Assignments may require citation of primary sources. While AI content may include references to primary sources, the AI's output is not reviewed by experts and the source references may not be correct. When primary source citations are specified, all factual statements in the work product that are not common knowledge must have the original source cited per standard citation styles.

Policy adapted with permission from UCSF School of Pharmacy: https://pharm.ucsf.edu/current/policies/ai#:~:text=In%20such%20an%20assessment%20or,Student%20Misconduct%20in%20Academic%20Studies%20.

Coursework

The doctoral program curriculum is designed to prepare students to work in and contribute to the field of global health by providing a breadth and depth of knowledge, as well as a high level of skill in health research methodology and practice. Through 2 years of coursework, followed by 2 years of work conducting and writing independent dissertation research, students gain a comprehensive skillset, training, and experience in global health research and practice.

Core Curriculum

The required core curriculum provides students comprehensive global health knowledge and research skills to prepare for diverse careers and leadership in the field of global health. Students receive core training in research methodologies critical to conducting and comprehending global health research, including epidemiology, biostatistics, implementation

science, demography, and qualitative research. Students then take advanced coursework in the methodology that is most applicable to their research interests.

The core curriculum schedule appears later in this document.

Global Health Proseminar Series

Students take foundational coursework in the principles and challenges of global health and study the key institutions, frameworks, and approaches for facing those global health challenges through a doctoral-level global health proseminar series, which serves as the backbone of the PhD curriculum. Students explore and analyze in-depth the topics that are cross-cutting to all work in the field of global health. The proseminar courses are:

- GHS 251: Global Health History, Development, and Inequity
- GHS 252: Comparative Health Systems and Financing
- GHS 253: Global Health Policy
- GHS 254: Research Ethics and Practice in Global Health
- GHS 255: Global Health Economics
- GHS 256: Global Health Architecture and Diplomacy

Course descriptions are available through the University Course Catalog.

Doctoral Seminar

The global health doctoral seminar (GHS 217) is designed to educate students about interdisciplinary approaches to global health challenges, provide professional development and career training/mentorship in global health research, and enable students to advance their academic and research skills, with the ultimate goal of facilitating the development of the doctoral student's capacity to conduct research in global health.

Seminar consists of several types of class sessions, including but not limited to:

- Guest speaker presentations on their work in global health, from UCSF and beyond;
- Student Works in Progress (WIP) presentations, in which faculty and students provide feedback to presenters on their research;
- Journal club sessions of relevant global health literature; and
- Workshops focusing on specific areas of professional development to help prepare students for successful careers in global health research.

Doctoral seminar is held fall, winter, and spring quarters in the first 2 years of the program, while students are completing their coursework and specifying their dissertation research. Seminar is scheduled every week for 2 hours. The content of the course shifts as students progress through the program:

Year 1

During the first year, the doctoral seminar focuses on laying the groundwork for students to successfully navigate the doctoral program and launch this next phase of their global health

careers by providing mentoring and coaching. This includes developing academic plans for progressing through the program (including coursework, research rotations, scientific writing, and dissertation research); professional development trainings for students specific to their interests and needs, including trainings on scientific writing and basic skills/tools for researchers; and introducing students to global health researchers and work being done at UCSF and beyond in order to facilitate the selection of faculty for mentoring and advising, and to introduce students to possible opportunities for research rotations and future collaborations. To gain practical hands-on training on scientific writing, during year 1, students will conduct a secondary data analysis on their area of interest, write the study findings and other sections of their paper, peer review each other's writings and publish their findings as a scientific manuscript. Throughout this process, they will receive tips, guidance and mentorship from the course instructors and their assigned mentor.

Year 2

During the second year, doctoral seminar will focus on writing a fundable grant proposal and preparing students to pass their Qualifying Exams and embark on their dissertation research. This will include a focus on developing skills in grant writing, scientific presentations, and preparing students for the Qualifying Examination, as well as continuing professional development and guest speaker sessions.

Electives

In addition to the core curriculum, students tailor their methods training and coursework by choosing electives that provide further depth of training in the methodology and content areas appropriate for their chosen field of study. Students may select electives from any department across UCSF, with the approval of their academic advisor and the program director. Electives offered by the following departments may be of particular interest:

- Epidemiology and Biostatistics: Training in Clinical Research
- Epidemiology and Biostatistics: Implementation Science
- Humanities and Social Sciences: Medical Anthropology, History of Health Sciences
- Nursing
- Nursing: Health Policy
- Sociology

If students wish to enroll in a course offered in other UCSF doctoral programs, they should contact the course instructor to ascertain whether they have met the prerequisites or eligibility requirements.

Some UCSF courses incur an additional tuition fee. Students who are interested in taking courses with additional fees should request the approval of the program director.

Intercampus Exchange Program, San Francisco Consortium, UCSF-Stanford Exchange

Students can take courses offered in other graduate programs at UCSF and other universities:

- The Intercampus Exchange Program allows students to take courses at other UC campuses, such as UC Berkeley and UC Davis.
- Through the San Francisco Consortium, any regularly enrolled, full-time matriculated student at UCSF may register for courses offered by other member institutions, including San Francisco State University and UC Law San Francisco.
- The UCSF-Stanford Exchange allows UCSF students to cross-register for courses at Stanford University.

Information about the Intercampus Exchange Program and cross-registration at other San Francisco Bay Area universities is at https://graduate.ucsf.edu/registration-policies-and-deadlines.

Students should contact the program directors and their academic advisor to seek approval for courses they are considering taking at other UCSF schools, UC campuses, or through intercampus programs. This is an excellent opportunity for IGHS doctoral students to tailor their scholarly experience by learning from researchers and educators on other campuses. Students are encouraged to explore these options.

Sample Core Curriculum Schedule

| Dept # | Course | Units | |
|---------|--|-------|--|
| | light green = epidemiology/biostatistics dark green = implementation science blue = GHS doctoral proseminar yellow = GHS doctoral seminar orange = GHS master's course | | |
| | Year 1 – Fall | | |
| GHS 251 | GHS Proseminar: Global Health Development, History, Inequity | 2 | |
| GHS 217 | Doctoral Seminar | 2 | |
| GHS 207 | Intro to Biostatistics | 6 | |
| GHS 260 | Epidemiologic Methods for Global Health Research | 4 | |

| Year 1 – Winter | | |
|-----------------|--------------------------------------|---|
| GHS 253 | GHS Proseminar: Global Health Policy | 2 |
| GHS 217 | Doctoral Seminar | 2 |
| BIOSTAT 208 | Biostatistical Methods II | 3 |
| EPI 207 | Epidemiologic Methods II | 3 |

| Year 1 – Spring | | |
|-----------------|---|---|
| GHS 256 | GHS Proseminar: Global Health Architecture and Diplomacy | 2 |
| GHS 217 | Doctoral Seminar | 2 |
| IMS 245 | Introduction to Implementation Science: Theory and Design | 2 |

| Year 2 – Fall | | |
|---------------|---|-----|
| GHS 252 | GHS Proseminar: Global Health Systems and Financing | 2 |
| GHS 217 | Doctoral Seminar | 2 |
| GHS 201C | Qualitative Research Approaches in Global Health** | 2 |
| EPI 263 | Demographic Methods for Health | 1.5 |

^{**} Can be replaced with Sociology 285 A-B (fall and winter quarters) for students wanting more advanced qualitative methods training

| Year 2 – Winter | | |
|-----------------|---|---|
| GHS 255 | GHS Proseminar: Global Health Economics | 2 |
| GHS 217 | Doctoral Seminar | 2 |
| EPI/IMS 267 | Qualitative and Mixed Methods Research | 2 |
| GHS 213 | Systematic Reviews | 2 |

| Year 2 – Spring | | |
|-----------------|---|---|
| GHS 254 | GHS Proseminar: Research Ethics and Practice in Global Health | 2 |
| GHS 217 | Doctoral Seminar | 2 |

Course Waiver Policy for Core Courses

Students may request to waive a core course if they believe that they have already mastered the course competencies in a graduate-level course completed elsewhere. The student is responsible for demonstrating competency in topic areas covered in the core course. Proseminars and the doctoral seminar cannot be waived.

To request a waiver for a core course, students should contact the program director no later than 4 weeks before the course begins. Students will need to provide the prior course syllabus and proof of completion, via official transcript, to the program director for evaluation.

The program director may consult with the faculty teaching the core course in question. If the program director determines the prior course meets the doctoral program's standards, the course waiver will be approved. If the prior course is deemed not equivalent to the core course, the student will be required to take the core course's final exam before the start of that course. If the student earns a passing grade (85% or above), the course waiver will be approved.

Students with approved course waivers may need to take alternative courses to meet minimum unit requirements for graduation. For instance, if students have already completed the required biostatistics courses, they should enroll in more advanced biostatistics courses.

Independent Study

Independent study provides an opportunity for advanced students to meet with a faculty mentor on study topics of special interest. Independent studies require a set of objectives and a method of evaluation.

Faculty mentors help develop a reading list related to the topic and meet approximately once a week with students to discuss the readings. The independent study also may involve a clearly defined data project or a developed plan for research study. As this is an *independent* study, the onus is on the students to guide the content and direction. Independent studies allow students to pursue specific research areas relevant to their dissertation, but outside of coursework and research rotations.

Students who wish to complete an independent study must submit a written proposal describing the independent study to the program director for approval before enrolling (see Appendent Study Project Proposal Form). If approved, students should enroll in GHS 294 for up to four units with the faculty sponsoring the independent study (usually, independent studies are only 1-2 units, determined by student and faculty time commitment). When the independent study is complete, students write a summary of the independent study and submit it to the program director.

Research Rotations

During the 2 years of coursework, students complete 2 research rotations with mentors of their choice. Research rotations provide an opportunity for experiential learning: students apply the

concepts they have studied in the classroom to real-world situations, in which they learn practical aspects of conducting global health research and are exposed to new areas of research and methodologies. In addition to expanding students' education, research rotations are excellent opportunities for students to get to know faculty who may serve as future mentors or members of their doctoral committee. Students also may arrange for research rotations in global health settings outside of UCSF, for example, with the World Health Organization, Centers for Disease Control and Prevention, or other public or private organizations.

Rotations are coordinated by a faculty researcher who serves as the rotation director. Faculty researchers ideally should have an active program of research in global health or have an expertise in an area related to the student's dissertation project. The objectives of research rotations are to:

- apply concepts taught in formal classes; and
- learn practical aspects of leading research projects and public health initiatives, including:
 - working within a research team or group;
 - acquiring exposure to areas of research other than the primary area of concentration;
 - establishing broader expertise and understanding of global health;
 - launching projects with potential for developing into dissertation research topics;
 and
 - o working with faculty who may serve on the doctoral committee.

Research rotations are intended to expand students' breadth of expertise and not be extensions of work already undertaken with a previously selected research advisor or be part of established job responsibilities. Students are strongly encouraged to pursue research rotations with new research mentors. A research rotation may help students identify a mentor for their dissertation work.

When planning for research rotations, students should consider the following:

- To be eligible to sit for the Qualifying Examination, students must have completed 2 research rotations.
- Students cannot rotate with the same rotation director more than once. In addition to matching research interests for the purpose of project development and funding, the rotation is a tool to allow students to maximize their research exposure in preparation for the dissertation. Rotations should change to enhance students' academic experience.
- If students have not secured funding for years 3-4 of the program, research rotations are an opportunity to identify funding relationships with faculty.
- If funding is secured for years 3-4, rotations can focus solely on skill development without need to develop funding relationships.

During the research rotation, the student apprentices under a specific member of the research team (the rotation director). The rotation director's goal is to provide author-level involvement for the student (i.e., participation in research at a level justifying future inclusion as an author on a

subsequent publication), and to help guide the student to produce a specific pre-defined deliverable at the end of the rotation. In collaboration with the rotation director, the student must submit the plan for research rotations in the annual Individual Education Plan and Progress Report (Appendix I). The program director reviews the report and approves proposed research rotations. Students present on the results/products developed during the research rotations in the doctoral seminar.

Examples of useful research products include, but are not limited to, the following:

- Research questionnaire or other data collection tool
- · Operations manual chapter
- Set of research measurements from the field
- Annotated set of statistical analyses/tables/figures
- Abstract for a research conference
- Manuscript for submission to a peer-reviewed journal

Research rotation proposals may launch future research projects and collaborations. The subject matter for each rotation is not prescribed by the program but determined by the rotation director and by the student.

Research Rotation Approval Process

In collaboration with the proposed rotation director, students should submit a Research Rotation Proposal Form (Appendix III) at least **4 weeks** before the start of the quarter for which students are proposing a rotation. All proposals will be reviewed and approved by the program director.

Earning Academic Credit for Research Rotations

Students should add GHS 249 to their study list for the quarter during which the research rotation will take place. When enrolling in the course, students should select the rotation director's name if that person is a UCSF faculty member; otherwise, students should select the PhD program director's name.

Students may complete a research rotation in the summer; however, students need to get the rotation director's approval to defer enrollment for this rotation to the fall quarter. Students cannot register for classes in the summer because the program does not pay summer quarter tuition. For students interested in conducting a research rotation outside of UCSF, the program recommends timing this in the summer between the first and second year.

Evaluation and Dissemination of Research Rotation Results/Products

At the end of the rotation, students submit a brief written report to the program director about what they achieved during the rotation. The rotation director will be asked to complete a brief evaluation of the student's progress. The program will request a copy of the rotation deliverable. Students also are expected to present on the results/products developed during the research rotations in doctoral seminar.

Teaching Residencies

Students are required to participate in 2 teaching residencies during their time in the program. In most cases, students serve as teaching assistants in courses they have taken in the first or second year. Teaching residencies help further students' skills in specific areas under the tutelage of experienced faculty, which in turn prepares them for future educational roles, including as faculty. See Appendix IV: Teaching Residency Proposal Form.

Earning Academic Credit for Teaching Residency

Students must enroll in GHS 248 for 1 to 2 units under the program director's name to get credit for each teaching residency. If students are paid for the teaching experience (there are some departments that offer a stipend), then the students should not enroll in GHS 248. Students cannot earn academic credit and be paid for the same work.

Evaluation of Teaching Residency

At the conclusion of each teaching residency, students submit a brief written report to the program director about what they achieved during the residency. The faculty lead of the course completes an evaluation of the student's progress.

Teaching Resources

The Office of Career and Professional Development (OCPD) offers the <u>STEP-UP Introduction to Pedagogy</u> course for graduate students and postdoctoral scholars planning to serve as teaching assistants or apply to faculty positions in the future. The STEP-UP course takes place once a year in May.

OCPD also maintains a helpful webpage of <u>teaching resources</u> and hosts a <u>Science Education</u> <u>Journal Club</u>.

Doctoral Committee

Students begin forming their doctoral committee in their second year. The doctoral committee is made up of 4 UCSF faculty members: the academic advisor, research advisor, and 2 additional UCSF faculty members who are either content or methods experts in the student's field of research. At least 2 of these faculty members must have a PhD or equivalent doctorate.

Per the UCSF Graduate Division, at least 1 member of the committee must be from outside the student's major department or graduate program. Students may add 1 or 2 additional committee members external to UCSF, with approval of the program director.

Doctoral Committee Roles/Responsibilities

Each committee member plays a specific role in helping students develop and conduct their dissertation research by providing expertise in their chosen content area or methodology.

Doctoral Committee Role in Qualifying Examination and Dissertation Defense

The doctoral committee provides mentorship to students starting in the second year as they develop their research proposal and dissertation prospectus in preparation for the oral qualifying examination. Students formally defend their research proposal and dissertation prospectus to the doctoral committee as part of the oral qualifying examination. Upon passing the qualifying examination and advancing to candidacy, the doctoral committee continues to provide mentorship while students conduct their doctoral research. Students formally defend their dissertation with the doctoral committee in audience at the culmination of the doctoral research.

The oral qualifying examination and dissertation defense are the two formal points in a doctoral student's career when they have the undivided attention of and opportunity to engage with their committee members. The intellectual and academic growth that happens in these sessions is unique.

Qualifying Examination Chair and Dissertation Chair

The Graduate Division asks students to name their qualifying examination chair and their dissertation committee chair (both members of the doctoral committee) via the Application for Qualifying Exam and Application for Advancement to Candidacy, respectively. These committees will likely have the same membership; however, as noted in the <u>Graduate Council regulations and procedures</u>, student's primary dissertation advisor may not serve as chair of the qualifying examination committee.

The qualifying examination chair must hold a PhD or equivalent doctorate. The dissertation chair must have a MD, PhD, or equivalent doctorate. Typically, the academic advisor will serve as the qualifying exam chair and the research advisor will serve as the dissertation chair.

Doctoral Committee Approval Process

Students work closely in doctoral seminar with the program directors to identify and finalize the doctoral committee. When the student's doctoral committee is ready for final approval, students will submit the Application for Qualifying Examination to officially name the doctoral committee (see next section for further details). Students typically complete this process as part of doctoral seminar in the spring or summer of their second year.

Application for Qualifying Examination

The Application for Qualifying Examination is available online in the <u>student portal</u>. This application is how students select their qualifying examination chair and other members of the doctoral committee. Once the application is submitted, it is routed to the program directors for approval.

Students must apply for admission to the oral portion of the qualifying examination and have it approved by the Graduate Division at least 2 weeks before the oral examination is administered; the oral exam follows the written exam (see details below). The Application for Qualifying

Examination is typically completed in the summer quarter of the student's second year or fall quarter of the third year. When the application is approved, the Graduate Division notifies both the student and the graduate affairs officer via email that the proposed qualifying examination chair and doctoral committee may administer the examination.

Qualifying Examination

After completing all required coursework, students prepare for and complete their qualifying examination in order to advance to candidacy. The qualifying examination has 2 parts: 1) a written examination that all students take during the same period of time and 2) an oral qualifying examination in which the student presents and defends his/her research proposal and dissertation prospectus to their doctoral committee.

Per the UCSF Graduate Division, the purpose of the academic doctoral program is to prepare students to be professional in, and contribute to, their discipline. There are 2 key benchmarks en route to the doctoral degree. The first is to pass the qualifying examination. The second is to successfully complete the dissertation.

The objective of the qualifying examination is twofold: first is to determine that the student is prepared to undertake the work of the dissertation, and second is to assess the student's mastery of the factual information, the theoretical concepts, and the methodological approaches in their field.

The qualifying examination provides evidence that the student is able to:

- Critically read, understand, and evaluate current literature in the discipline;
- Integrate and synthesize ideas within the field;
- Demonstrate comprehensive knowledge of the literature in the field;
- Critically evaluate empirical evidence;
- Demonstrate a comprehensive understanding of methods critical to scholarship in the field; and
- Communicate clearly and effectively to specialist and non-specialist audiences.

Program Guidelines for the Qualifying Examination

To be eligible for the qualifying examination, the student must have completed all required core coursework, 2 research rotations, and 6 quarters in residence, and have a cumulative grade point average of at least 3.0 in all courses taken in graduate standing.



Written Examination

The written exam covers the required core curriculum coursework, including the following core learning competencies:

- Global health content: be knowledgeable about the current state of global health and the forces that shape it.
- Global health research methodology: be able to design, implement, manage, analyze, and draw scientifically sound conclusions from research on global health.
- Professionalism and research independence: demonstrate critical thinking, scholarly practice, doctoral level research and communication skills, and professional and ethical conduct.

Standard timing for the written qualifying examination will be in the summer quarter (late June-early July) after second year.

The questions are written and graded blindly by instructors from each of the required core courses. Students must earn at least a 70% on each question, and an overall score of 80% or higher to pass. Students receiving a passing overall score, but <70% on a question will be given one opportunity to be re-examined in that subject area. Students who earn <80% overall score will be given one opportunity for a full re-examination. A third examination is not permitted.

Oral Examination

Research Proposal and Dissertation Proposal

After passing the written qualifying exam, students submit to their doctoral committee 2 written documents: (1) a **formal research proposal**, in the format of an NIH grant application including specific aims, background, significance, innovation, preliminary studies, design, methods, analysis plan, references, contribution to career goals, and mentoring plan; and (2) a **dissertation prospectus** that outlines 3 research papers that will comprise their dissertation. Students should work closely with their doctoral committee members as they draft these documents (<u>Appendix V: Research Proposal Template</u>, <u>Appendix VI: Dissertation Prospectus Template</u>). A draft of a human subjects research (IRB) application for at least 1 research project should be included in the packet of written materials.

The purpose of preparing and presenting the written materials is to determine the student's ability to generate new hypotheses, use supporting evidence to justify the research, design a study that addresses the aims of the research proposal, and discuss the methods for collecting data and conducting the analysis of the data.

Standard timing for the oral defense is late summer of the second year through the end of fall quarter in the third year of the program. Students must be registered at the time the examination is given. If the exam is to be taken in summer session, registration is not required but the student must have been registered in the previous spring quarter. Otherwise, a student

must register during the summer session. More information can be found here.

Please review the timeline below:

Before the Oral Qualifying Examination (QE):

| Step 1: After passing | Step2: 3 weeks | Step 3: 2 weeks before | Step 4: Oral QE |
|--|---|---|--|
| Written QE | before Oral QE | Oral QE | occurs |
| Work with your Doctoral Committee members to develop your proposal and prospectus. All Doctoral Committee members should review these documents and will need to give written approval (ex: via email) before proceeding with the next step. After approval, the student should schedule the date for their oral qualifying exam. | approved proposal and prospectus, the committee members review them for any | Application for the Oral Qualifying Exam via the Student Portal. The Graduate Division asks students to name their qualifying examination chair and their dissertation committee chair (both members of the doctoral committee) on this application; the qualifying exam chair and the dissertation chair | from your Doctoral committee. The Doctoral Committee will provide a decision. |

After the Oral Qualifying Examination:

| Candidacy for the Degree of Doctor of Philosophy form, via the Student Portal. For | Step 5: No action required by student | Step 6: Action required | |
|--|--|--|--|
| | If you pass the oral qualifying exam, Darlene will work with your qualifying examination chair | Once your Oral Qualifying Exam results are confirmed by the Graduate Division you can start the process to advance to candidacy. Your last step is to initiate the <i>Application for Candidacy for the Degree of Doctor of Philosophy</i> form, via the Student Portal. For example, approvals on the form must be recorded no later than 11:59 pm on January 1, 2024 in order to advance to candidacy for | |

Oral Defense

On the day of the oral defense, the student gives a formal presentation of their written materials for approximately 30 minutes to the committee.

The oral questioning by the doctoral committee includes questions that relate directly to the proposal, as well as questions that probe the breadth and depth of knowledge of the methods proposed and critical thinking skills of the student. The exam challenges students to clarify their global health research agenda and how it sits in the larger field of global health research. Students should be able to discuss not only their proposed research, but how it would differ with different methods, different populations, different sampling approaches, using different tools or analytic approaches, etc. The student is not allowed to bring texts, papers, or other materials to the exam, and should rely on inherent knowledge when presenting and answering questions.

After completion of oral questioning, the committee votes in the absence of the student and decides whether the student should receive a pass, partial failure, total failure with reexamination, or failure without reexamination (see explanations in 'Evaluation' section below).

Oral Defense Attendance

The oral defense must be held with the entire doctoral committee physically present. If a committee member cannot attend in person, the oral defense should be rescheduled, or the committee should be reconstituted. Students may not be examined privately by committee members.

If an emergency arises for a committee member before the oral defense, such as an illness or an accident, the committee chair should contact the program director to explain the situation and request permission to conduct the oral defense under special circumstances.

If a student fails to appear for the oral defense, both the committee chair and the student should submit reports to the program director as soon as possible. The Graduate Division may rule that failure to appear at the scheduled time is a failed examination.

Oral Defense Evaluation and Report on Qualifying Examination

Following the oral defense, the qualifying examination chair will collect signatures from committee members and transmit the signed Report on Qualifying Examination for Admission to Candidacy form to the program director.

If a student fails the examination, the committee must make a recommendation for or against a second examination.

In the case of a divided vote, individual members of the committee must state the reasons they voted the way they did. The matter is then referred to the Graduate Council for a final decision.

Below are definitions of the possible evaluation outcomes of the qualifying examination:

<u>Pass</u>: Demonstration of competency in knowledge and critical analysis of global health methods and topical areas. Admission to candidacy for the PhD.

<u>Partial failure with reexamination in areas</u>: Conditional upon successful completion of additional study or coursework.

A partial failure, in which the student passes some fields, but not others, counts as a first examination. However, re-examination after partial failure may be restricted to those areas in which the original performance was unsatisfactory. A third examination is not permitted.

A partial failure should include clear delineation by committee members on what areas the student will be reexamined via a written communication by the committee chair to the student. It should include a proposed timeline, process for completion, and recommendations to the student for completion of additional study or coursework prior to reexamination.

When conditions for a 'pass' are met, the qualifying examination chair will ensure that a second Report on Qualifying Examination for Admission to Candidacy is submitted to the program director.

<u>Total failure with reexamination</u>: All areas found to be deficient. The reexamination must be on all subjects involved and the second qualifying examination committee must be identical in composition to the first.

<u>Failure without reexamination</u>: All areas found to be deficient, no progression to candidacy for the PhD permitted.

When the Report on Qualifying Examination is received and the dean of the Graduate Division has confirmed the qualifying examination results, the student and the graduate affairs officer are notified via email. If the qualifying examination is successfully completed and no deficiencies (such as incomplete grades) preempt processing, the next step is to complete the Application for Candidacy for the Degree of Doctor of Philosophy, which is submitted via the online student portal.

Advancement to Candidacy

Provided that students have no deficiencies as mentioned above, they may advance to candidacy. Students must be registered in the quarter in which they advance to candidacy.

Students should complete the Application for Candidacy for the Degree of Doctor of Philosophy online in the <u>student portal</u>. The application asks students to name their dissertation chair, other members of their doctoral committee, and the subject of investigation for the dissertation. As a

reminder, the qualifying examination chair and dissertation chair **cannot** be the same person, although both are members of the doctoral committee. The application is due no later than the first day of the term in which a student wishes to advance to candidacy. The <u>UCSF Academic</u> Calendar has relevant dates.

The application for candidacy requires the student pay a \$90 application fee.

When a student has advanced to candidacy for a doctoral degree, the student is considered a full-time student for the rest of their time as a graduate student, unless the student is on an approved leave of absence. A maximum of 3 quarters leave is permitted.

At least 3 quarters in registered student status must elapse between advancement to candidacy and conferral of the degree.

Candidacy for the doctoral degree is considered "lapsed" when a student has not completed requirements for the degree within 4 years after advancement to candidacy. Leaves of absence count against this time. Upon lapse of candidacy, students must submit a petition for reinstatement, together with a recommendation from a program faculty member to either require or not require a new qualifying examination.

The Dissertation

The dissertation guidelines for the PhD in Global Health Sciences are consistent with and build on the dissertation guidelines from the UCSF Graduate Division. The dissertation is the final and most important step in the doctoral degree program. The dissertation should be a work of independent research that makes an original contribution to knowledge in the field of global health and should be of sufficient depth and quality to be published.

Written Product

The written dissertation consists of 3 parts: the introduction chapter, 3 primary research chapters, and the conclusion chapter. <u>Appendix VII: Dissertation Written Product</u> details page lengths for each section, and descriptions of each chapter are below.

Introduction Chapter

This first chapter should present background and significance of the body of the doctoral work as a whole and frame the research that is presented in a broad global health context. The introduction should demonstrate scholarly review and synthesis of the pertinent literature.

Some doctoral work may focus exclusively on research topics that are based in one country or setting; in the introduction, the student should demonstrate knowledge of their research area from a global health perspective. This section should not be a personal narrative, but rather an analytic piece framing the research. All committee members must sign off on the introduction.

Research Chapters

This section is comprised of 3 or more chapters from original research the student conducts after advancing to candidacy in the PhD program. The dissertation must be more than publishable research; it must constitute high-quality independent research per the assessment of the committee. Each chapter should be of a quality to be submitted for peer-reviewed academic journal publication. The student should present research papers for which he/she is the first author. All committee members must sign off on each research paper.

Conclusion Chapter

Although each research chapter includes a section on significance of the specific research presented, this conclusion chapter is a dedicated space to discuss the broader impact of the research body as a whole. For example, the conclusion chapter might address questions such as: How will the student translate these findings into action? How will this research impact the field? What are the implications of the findings, next steps, recommendations? All committee members must sign off on the conclusion.

Submission to a Peer-reviewed Journal

The student must publish at least 1 paper in a peer-reviewed journal before the dissertation is complete and can be filed with the Graduate Division. Acceptable journals must have an independent editorial board and subject submissions to rigorous peer review. The student must send a notification of manuscript acceptance or publication to the graduate affairs officer prior to submitting the dissertation to the Graduate Division.

Requirements if Research is Collaborative

In some cases, the student has done all of the work for the dissertation independently; in this era of team science, however, portions of the dissertation result from collaborative research. In all dissertations containing collaborative results, the dissertation should indicate concisely who contributed to the work and how, and the PhD candidate must be the first author.

A chapter containing multi-authored, published work must include a complete reference of the publication and a brief description of the candidate's and the collaborators' contributions. For work that is not published but that resulted from multiple researchers, the contributors must be named and respective attributions made clearly. Please refer to Graduate Division guidelines on how to cite collaborative research in the final formatting of the dissertation.

Requirements if Research is Already Published

Individual chapters can comprise the content of published articles, as long as the student also writes a comprehensive introduction and conclusion. Although the text can be the same, using journal reprints as a chapter is not permissible. The published article must appear in the body of the dissertation with the pages consecutively numbered. Furthermore, the figures and accompanying figure legends must be integrated into the main body of each chapter, preferably following the first mention of the given figure and not clustered at the end of the chapter.

Research and scientific papers completed by the student before entering the doctoral program cannot be used as a part of the dissertation under any circumstances. The Graduate Division guidelines discuss using previously published materials.

Ethical Review/Institutional Review Board (IRB) Approvals

All research involving human subjects, including analyses of previously collected data, must be approved (or declared exempt) in writing by the UCSF Committee for Human Research (CHR) in order to be included in a dissertation, regardless of which or how many other such committees elsewhere have previously approved the research. If research is based in another country/with other collaborators, local IRB is also required. Receipt of IRB should be clearly stated in each research chapter.

Writing Quality

The final dissertation must be clearly, logically, and carefully written. The doctoral committee may ask for re-writes after their review and/or after the dissertation defense. Any dissertation that varies significantly from the Graduate Division guidelines or is not neat, proofread, and readable is subject to required stylistic revision before acceptance by the University (see Filing/Submitting the Dissertation section below).

Public Presentation and Dissertation Defense

Students are expected to present their dissertation research findings to the IGHS community, immediately followed by a dissertation defense with the doctoral committee. The public presentation is the final opportunity for students to receive feedback on their work from their doctoral committee, as well as from the broader IGHS and UCSF audience.

Public Presentation

All doctoral committee members and program directors and the student must be in attendance in person for the public presentation. Video conferencing and calls are not permitted for committee members or students. Students may opt to take notes during the question and answer portion of their presentation.

The public presentation will be advertised to the IGHS and larger UCSF community.

Dissertation Defense

The dissertation defense is a closed-door oral examination with the doctoral committee immediately following the public presentation. The doctoral committee examines the student on their final dissertation materials. Committee members may have suggestions for edits and must give the student written feedback within 1 week of the defense, clearly detailing what revisions are required prior to final submission and sign-off on the dissertation.

Scheduling

Students should schedule the date of their public presentation and dissertation defense when they have had drafts of all chapters of their dissertation reviewed by their committee (3 research chapters, introduction, and conclusion) and the committee agrees that the student is ready to progress toward graduation.

Students should begin the process of scheduling the presentation at least 8 weeks in advance to coordinate schedules of the doctoral committee members and the program directors. The presentation should be scheduled at least 3 weeks before the initial submission of the manuscript to the Graduate Division, keeping in mind the ProQuest quarterly deadline. This allows time for the student to incorporate required revisions by the doctoral committee and address required formatting revisions by the Graduate Division.

The public presentation should be scheduled for 1 hour (45 minutes for presentation, 15 minutes for questions) followed by 2 hours for the closed-door dissertation defense with the doctoral committee.

The Sign-off

The doctoral committee signs off on the dissertation only when the student has adequately addressed feedback from the committee and the wider IGHS/UCSF audience following the public presentation and dissertation defense, and all necessary revisions are completed to the committee's satisfaction. The committee's signatures confirm that no further edits are required and the doctoral degree is ready to be conferred.

Students initiate the process for <u>electronically collecting signatures</u> from their committee members for the title page.

Filing/Submitting the Dissertation

The final step is submitting the dissertation to the Graduate Division through ProQuest. Each dissertation is deposited in the UCSF Library and becomes an official and permanent record available for use by other scholars and the public.

The Graduate Division provides clear guidelines to support students through the submission process:

- Dissertation guidelines and submission deadlines
- Formatting quidelines
- Content guidelines
- Additional things to consider
- Final steps
- Frequently asked questions

Getting It Done

During the dissertation years, without the structure of coursework, students may find it challenging to manage their time and maintain consistent progress on their dissertation. It is recommended that students form a support structure that includes other students in the dissertation phase and set up routine meetings to discuss progress and barriers. Also, routine meetings with the research advisor are helpful to ensure that students are making timely progress.

The UCSF Student Mental Health & Wellbeing (SMHW) provides many resources for students during this critical period of their PhD career. Students may find help through an SMHW inperson workshop that primarily focuses on mental and emotional barriers before, during, and after the qualifying examination, as well as strategies for completing the dissertation.

Graduation and Program End

Graduation Application

The University has implemented a Graduation Application in the <u>Student Portal</u>, which all graduating students must submit. Students will be prompted to submit the graduation application at the beginning of the quarter of their expected graduation term. In order to submit the application, students will need to log into the <u>Student Portal</u> and navigate to the **Study List & Grades** tab and then select **Graduate Application**. Once the application is submitted, it will get routed to the graduate affairs officer for approval.

Required Surveys

PhD students must complete the <u>Survey of Earned Doctorates</u> on the website of the National Opinion Research Center/National Science Foundation. Taking the survey is a 2-part process. First, students must register and provide a valid email address, and then they will be sent a confirmation email with their PIN and password to access the survey. When registering, *students must be sure to use UC San Francisco as the institution name on the web form.* When students have completed the online survey, a notification will be sent automatically to the Graduate Division.

PhD students also must complete the online Doctoral Exit Survey (the survey link is manually sent to your UCSF email account upon submitting your dissertation to ProQuest). The Graduate Division will be notified automatically when students complete this survey.

Graduate Division Commencement Ceremony

The Graduate Division holds a commencement ceremony once each year, typically in late May/early June. Students will receive an invitation to participate in a commencement ceremony relative to their expected graduation term. Students do not need to have submitted their dissertation before participating in the commencement ceremony. If students plan to graduate in the summer term, they may participate in the May/June commencement ceremony.

Planning for After Graduation

Students should talk with their research advisor about opportunities that suit their interests after graduation and make use of the UCSF Office of Career and Professional Development:

- Preparing for an Academic Career: https://career.ucsf.edu/phds/social-population-sciences/academic-careers
- Pursuing Diverse Careers: https://career.ucsf.edu/phds/social-population-sciences/non-academic

Degree Conferral and Diploma

Following the end of the student's graduation term on the UCSF academic calendar, the Office of the Registrar will begin the process of verifying degree completion. Diplomas will be available 8-12 weeks after the end of the term. The Office of the Registrar's website provides details on how to obtain your diploma.

UCSF Email Access after Graduating

Students will lose access to their UCSF email 6 months after the end of the graduation term, or after employment separation from the university. Email forwarding is not available and students may not receive prior notice or warning of email deactivation. Graduates are eligible to establish a UCSF Alumni email account.

Policies and Procedures

Policy on Student Progress: Requirements, Notification, Remediation, and Review

1. Criteria for satisfactory academic progress

The policy regarding satisfactory academic progress in the Doctor of Philosophy in Global Health Sciences program is as follows:

Students in Year One

First-year students should meet with their academic advisors once each quarter. Student progress is assessed at the end of the year on the basis of course grades and performance, rotation reports, and advisor assessment. Indicators of unsatisfactory progress include, but are not limited to, substandard work or unprofessional conduct in the academic or research environment or failing grades in any courses (see list of examples below).

Students in Year Two

Second-year students should meet with the academic advisor and research advisor once each quarter. Indicators of unsatisfactory progress in year two (as in year one) include, but are not limited to, substandard work or unprofessional conduct in the academic or research environment, or failing grades in any courses (see list of examples below). Students are also evaluated on their progression toward, timely scheduling of, and then successful completion of the qualifying examination.

Students should form their doctoral committee in a timely manner. Not submitting the names of committee members to the program within 6 months of passing the qualifying exams will be considered an indicator of unsatisfactory progress, except in extraordinary circumstances.

Students in Year Three and Beyond

Students in years three and beyond may be making unsatisfactory progress if any of the following requirements are not met:

Students must meet with the dissertation chair at least once per quarter. It is recommended that students communicate their progress to their doctoral committee members on a quarterly basis at minimum and confer with individual committee members about specific aspects of their dissertation research and writing as needed.

Student progress is assessed at the end of each year on the basis of the annual Individual Education Plan and Progress Report, plus additional comments from dissertation chairs about students who might be struggling.

Students are expected to complete all degree requirements within 4 years.

Unsatisfactory progress indicators may include, but are not limited to:

- Falling below a 3.0 GPA
- Failing grades in any course
- Unsatisfactory research work (as reported by a research advisor and/or research rotation director)
- Unprofessional conduct in the academic or research environment (as reported by a research advisor, a course instructor, or other faculty)
- Failing the qualifying exam, the first time
- Failure to submit dissertation chapters in a timely fashion
- Disciplinary problems and other conduct and professionalism infractions that fall within the scope of UCSF's <u>Code of Conduct</u>.

2. Process by which failing students will be notified and remediated

Students whose progress is unsatisfactory (according to one or more of the criteria listed above) will be notified and will meet with the advisor and the program director to develop an individualized remediation plan to address the deficiencies. The meeting results in a memorandum of understanding that clearly outlines specific steps and associated deadlines that the student must fulfill in order to receive a satisfactory report. The report is then signed by the following parties: the student, the academic advisor, and the program director. At this point, the report is filed in the student's academic file within the program, and a copy is sent to the associate dean for graduate programs.

Should the student be unable to fulfill the expectations according to the timeline outlined in the letter, the student will be subject to dismissal from the program.

The process for in-depth review of a student's eligibility for dismissal will follow the UCSF <u>Divisional Procedure for Student Grievance in Academic Affairs, section 4.0</u>, and will be conducted by the program's in-depth committee.

3. Composition of the in-depth review committee, should one be necessary

The in-depth review committee shall consist of 3 faculty members within IGHS who are knowledgeable about the academic program and student performance standards, and may include academic officers of the IGHS as long as they number in the minority of those committee members present at the review hearing.

Members may include academic advisors, research advisors, course directors, or representatives of the IGHS Graduate Group who serve on the executive, curriculum, or admission committees.

Policy on Academic Misconduct

The Institute for Global Health Sciences Education Programs emphasize the importance of social justice and equity through a code of ethical behavior and academic honesty. The faculty and students work together to create a learning environment that values academic honesty, protects the integrity of an individual's work, and enhances the integrity of IGHS Education Programs.

Definition of Academic Dishonesty and Misconduct

1. Cheating:

- Fraud, deceit, or dishonesty in an academic assignment; using or attempting to use materials that are not authorized (including ChatGPT and other Al-based tools); or colluding with others to do so.
- Copying or attempting to copy from others on an exam or on an assignment.
- Communicating answers with another person during an exam.
- Pre-programming an electronic medium to contain answers or other unauthorized information for exams.
- Using unauthorized materials, prepared answers, written notes, or concealed information during an exam.
- Allowing others to do an assignment or portion of an assignment.
- Submission of the same assignment for more than one course without prior approval of all the instructors involved.
- Collaborating on an exam or assignment with any other person without prior approval from the instructor.
- Taking an exam for another person or having someone take an exam in place of the student.
- 2. Plagiarism: An author's work is their own property and must be respected by documentation. Plagiarism refers to the use of another's ideas or words without proper attribution or credit and includes: copying of passages from works of others (e.g., books, articles, films, graphics, websites or other electronic sources) into a student's homework, essay, term paper, examination, qualifying papers, or class project without proper citation or acknowledgment; the use of the views, opinions, or insights of others without acknowledgment; and paraphrasing of a person's characteristic or original phraseology, metaphor, or other literary device without acknowledgment or proper citation. For additional information on plagiarism, please see Appendix VII: Plagiarism versus Proper Citation.
- 3. False information and representation, fabrication, or alteration of information: Furnishing false information in the context of an academic assignment. Fabricating or altering information or data and presenting it as legitimate. Providing false or misleading information to an instructor or any other University official.

- 4. Theft or damage of intellectual property: Sabotaging or stealing another person's assignment, book, paper, notes, experiment, project, electronic hardware or software. Improper access to, or electronically interfering with, the property of another person or the University via computer or other means. Obtaining a copy of an exam or assignment prior to its approved release by the instructor.
- 5. Distribution or sharing of lecture notes or exam items/information to provide undue advantage to others or for commercial purposes: Selling, distributing, website posting, texting, emailing, or publishing course lecture notes, handouts, readers, recordings, exam items, confidential or other information provided by faculty to give advantage to others or for any commercial purpose, without the express written permission of the faculty.
- 6. **Research and practice**: All students are expected to conform to all relevant Institutional Review Board guidelines as well as acceptable ethical practices.

The list above is not comprehensive. Other acts not explicitly outlined within each section above, but fitting the spirit of the code, will also be considered if allegations of academic misconduct are made.

More information can be found in the <u>UCSF Code of Conduct and Integrity of Research</u>.

The IGHS faculty and administration will respond to alleged acts of academic misconduct in a respectful and supportive manner that emphasizes fairness, timeliness, due process, and transparency. The process for notification and remediation of academic misconduct will follow the steps outlined above in the Policy on Student Progress, Section 3.

Appendix I: IGHS PhD Individual Education Plan and Progress Report

This form is intended to help the program and students keep track of their progress on research and career goals during the PhD program. Students should meet **annually** with their academic advisor at the beginning of each school year to complete this report. For more information, refer to the My Annual Plan (MAP) for UCSF Graduate Students. For an online, more in-depth skills assessment and career planning tool, go to myidp.sciencecareers.org.

| Student a | and Advisors Information |
|----------------------------|--------------------------|
| Student Name: | |
| ORCID number / link: | |
| Google scholar link: | |
| NCBI My Bibliography link: | |
| | |
| Academic Advisor: | |
| Research Advisor: | |
| | |
| | |

Submission Date

Every year, complete or update this form by the assigned deadline and submit to program directors Elizabeth Fair and Ali Mirzazadeh, with a copy to Darlene Mergillano.

Submission date:

Academic quarter:

Academic year:

Setting Goals

Reflect on your career goals and review your current CV to help you identify areas for development and skill-building as you set your goals for your time in the PhD program.

Describe your career and research goals:

Describe how the knowledge, skills, experiences, and relationships you gain during your PhD will help you obtain your goals:

Course Planning

Use your career and research goals to inform your course plans:

Required courses are listed in the Sample Core Curriculum Schedule in the handbook but note that courses are subject to change from year to year. Talk with your advisor about whether you will test out of any required courses. Plan your electives, research rotations and teaching residencies and add them to the table (mark them as blue).

If you <u>have advanced to candidacy</u> and do not plan to take any more courses, please skip this section.

| | Year 1 - Course Plan | | |
|----|----------------------|-------|--|
| | Fall Quarter Y1 | | |
| | Course | Units | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | Winter Quarter Y1 | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | Spring Quarter Y1 | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |

| | Year 2 - Course Plan | | |
|----|----------------------|-------|--|
| | Fall Quarter Y2 | | |
| | Course | Units | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | Winter Quarter Y2 | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | Spring Quarter Y2 | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |

Research Rotations Plan

Keeping your research goals and your funding needs in mind, map out your research rotations: Mapping out your rotations here aims to help you think ahead to what rotation projects will help you work toward your career goals or identify who you might want to work with.

Even if you have completed Research Rotations and Teaching Residencies, please enter them here.

| Proposed Rotation Director | | Desired Skills, Experiences to Gain | Quarter/Year |
|-------------------------------|--|-------------------------------------|--------------|
| | | Research Rotation #1 | |
| 1. | | | |

| | Research Rotation #2 | |
|----|----------------------|--|
| 2. | | |

Teaching Residencies

Keeping your research and career goals in mind, make a plan for your teaching residencies: You are expected to participate in two teaching residencies, starting in the second or third year. Mapping out your teaching residencies here aims to help you think ahead, but it is not a binding agreement.

| | Course | Course Instructor | Quarter/Year |
|----|--------|---------------------|--------------|
| | Tea | aching Residency #1 | |
| 1. | | | |
| | Tea | aching Residency #2 | |
| 2. | | | |

Doctoral Committee

In your second year, you will form your doctoral committee. This should be composed of your academic advisor, your research advisor, and at least 2 UCSF faculty members who are either content or methods experts in your field of research. Each committee member plays a specific role in helping you develop and conduct your dissertation research by providing expertise in your chosen content area or methodology. The 4 core committee members must be UCSF faculty and at least 2 of these faculty members should have PhDs. You may add 1-2 additional committee members external to UCSF with approval of the program director.

If you have not yet advanced to candidacy, please suggest ideas for your doctoral committee.

| | Doctoral Committee | | | |
|----|----------------------------------|------|--------|-------------|
| | Core Committee Members from UCSF | | | |
| | Proposed Member | Role | Degree | Institution |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |

| | Additional | Committee Members External to | UCSF | |
|----|-----------------|-------------------------------|--------|-------------|
| | Proposed Member | Role | Degree | Institution |
| 1. | | | | |
| 2. | | | | |

Dissertation Plans

In a few sentences, describe your dissertation project or ideas for your dissertation:

Research and career goals for the year

| | (e.g., new skills, gr | Research Goals rants, publications, dissertation pieces) | |
|----|-----------------------|---|--------------------------------|
| | Goals | Action Items | Proposed Completion Date |
| 1. | | | |
| 2. | | | |
| 3. | | | |

| | (e.g., conferences, interns | Career Goals hips, teaching residencies, networking eve | nts) |
|----|-----------------------------|--|--------------------------------|
| | Goals | Action Items | Proposed Completion Date |
| 1. | | | |
| 2. | | | |
| 3. | | | |

Annual Achievements and Productivity Measures

Complete or update this table annually before you start a new academic year. This is to measure your achievements and monitor the productivity over the past year. Data to fill in this table can be collected from your CV or biosketch. Add other prominent achievements as new rows to the table.

| | Measure | Qua | Quantity in each year of the program | | | | |
|-----|---|-----|--------------------------------------|-----|-----|----|--|
| | | | Y 2 | Y 3 | Y 4 | Y5 | |
| | Publications | | | | | | |
| 1. | Papers published in peer-reviewed journals | | | | | | |
| 2. | Manuscripts submitted in peer-reviewed journals | | | | | | |
| 3. | Manuscripts under development | | | | | | |
| | Research Funding | | | | | | |
| 4. | Grant proposals funded | | | | | | |
| 5. | Grant proposals submitted / under review | | | | | | |
| | Awards | | | | | | |
| 6. | Scholarships, fellowships, or awards | | | | | | |
| | Presentations | | | | | | |
| 7. | Abstracts presented in conferences | | | | | | |
| 8. | Speeches or talks given at UCSF or other institutes | | | | | | |
| | Networking | | | | | | |
| 9. | "Informational interviews" with people in careers you find attractive | | | | | | |
| 10. | Professional societies that you joined | | | | | | |
| | Citation and impact | | | | | | |
| 11. | Scopus: H index (https://www.scopus.com/freelookup/form/author.uri) | | | | | | |
| 12. | Google Scholar: H index (https://scholar.google.com/) | | | | | | |
| 13. | Google Scholar: i10 index (https://scholar.google.com/) | | | | | | |

Candidacy Phase

This section is intended to help students who <u>have progressed to candidacy</u> to map out and keep track of their progress on their research and career goals during the research phase of the PhD program. Students should continue to meet regularly with their Doctoral Committee, and complete this report at the beginning of each school year.

Dissertation submission and other key dates

| | ranger discontation submission date. |
|---|--------------------------------------|
| F | Planned defense date: |
| F | Planned graduation quarter: |
| | |
| | |

Research Progress and Timeline

| IRB | |
|-----|--|

Date of submission to IRB:

Target dissertation submission date:

Date of IRB approval:

IRB Approval #:

If IRB approval has not been secured, please describe plan and timeline:

Research Status Update

Please summarize the current state of your research (overall and by paper):

Overall:

Paper 1:

Paper 2:

Paper 3:

Please describe any challenges you are having (with data collection, research setting, communication with doctoral committee, etc.):

Please describe plans for addressing these challenges:

Is there anything the PhD Program team can do to help support your progress at this stage in your research?

Appendix II: Independent Study Project Proposal Form

The success of an independent study project/activity is related to careful planning, the amount of time devoted to the study project, and the quality of mentorship received. It is the student's responsibility to work closely with a faculty mentor to develop a thorough plan for undertaking and completing an independent study/activity. The faculty mentor should have expertise in the area of the study project and also be willing to provide supervision and mentoring and evaluate the student performance at completion.

Typically, independent study projects range from 1-3 units, with a one-unit project involving approximately 40 hours, a two-unit project involving 80 hours, and a three-unit project involving 120 hours. You must have completed sufficient course work in the proposed area of study.

Please use this form to submit your proposed study project. In collaboration with your faculty mentor, complete the independent study proposal form and submit at least four weeks before the start of the quarter for which you are proposing to conduct the work. Your proposal will be reviewed and approved by the program director.

| Submission Date (MM/DD/YY): |
|--|
| Your Name: Your answer |
| Please indicate the academic quarter for which you are proposing an Independent study |
| project: Fall Winter Spring Summer |
| Please indicate the academic year for which you are proposing independent study project |
| Your answer |
| Proposed Faculty Mentor: Your answer (Indicate the faculty mentor with whom you will be conducting the independent study project.) |
| Number of units requested: Your answer |
| Describe the goals, rational, and proposed outcome for this Independent Study Project: |
| Your answer |
| What topics and skills will you master during the Independent Study Project? |
| Your answer |
| |

What is the Time Commitment of this Independent Study Project? How many hours/weeks

will you spend and for what duration? Your answer

| How often will you meet with your faculty mentor? Your answer | | | | | |
|--|--|--|--|--|--|
| Is there an Identified Reading List for this Independent Study? Yes No | | | | | |
| If yes, please write the major Readings for this Independent Study Your answer | | | | | |
| As part of this Independent Study, are you required to participate in any of the following? Check all that apply: Seminars Journal Clubs Group Meetings Other: | | | | | |
| Describe the evaluation and grading criteria, including expected deliverables (e.g., papers, presentations, documentaries): Your answer | | | | | |
| Name any participating non-UCSF organizations or individuals, and provide a brief description of their role and an official letter of support from these organizations or individuals: Your answer | | | | | |
| PROGRAM STAFF USE ONLY | | | | | |
| Proposal reviewed and approved by • Program director name and signature | | | | | |
| Date of approval (MM/DD/YY): Date of approval by the Faculty Mentor (MM/DD/YY): | | | | | |
| Student was notified of the approval? Yes No Notes: | | | | | |
| Independent Study Project evaluation completed by the Student? Yes No Notes: | | | | | |
| Independent Study Project evaluation completed by the Faculty Mentor? Yes No Notes: | | | | | |

Appendix III: Research Rotation Proposal Form

Please use this form to submit your proposed research rotation. In collaboration with the proposed rotation director, complete the research rotation proposal form and submit at least four weeks before the start of the quarter for which you are proposing a rotation. Your proposal will be reviewed and approved by the program director.

| Submission Date (MM/DD/YY): |
|--|
| Your Name: Your answer |
| Please indicate the academic quarter for which you are proposing a research rotation Fall Winter Spring Summer |
| Please indicate the academic year for which you are proposing a research rotation Your answer |
| Proposed Rotation Director Your answer Indicate the faculty member who will be overseeing this Research Rotation |
| Title of the Project: Your answer |
| Brief Description of Why this Rotation is of Interest to You Your answer 1-2 sentences, though feel free to explain more if you have more to say |

Describe the Project Overall and the Tasks Related to the Project Your answer

What will be Your Specific "Deliverable" Related to the Project? Your answer e.g., author-level involvement in a research manuscript, a survey instrument, focus group findings, a report on measurement validity. This deliverable should be something of interest and use to the rotation director's team, not just an academic project.

What Topics and Skills will you Master During the Rotation? Your answer If the rotation is not enough time for you to master the desired skill, think about what you will begin to gain mastery of.

What is the Time Commitment of this Rotation? Your answer How many hours/weeks will you spend and for what duration?

How Often will You Meet with the Rotation Director? Your answer

| Will you Have a Work Space in the Rotation Director's Group? Yes No Other: |
|--|
| If so, what is the expectation about how much time you spend there? Your answer |
| Is there an Identified Reading List for this Rotation? Yes No Other: |
| As part of this Rotation are you required to participate in any of the following? Check all that apply Seminars Journal Clubs Group Meetings Other: |
| PROGRAM STAFF USE ONLY |
| Proposal reviewed and approved by • Program director name and signature |
| Date of approval (MM/DD/YY): |
| Date of approval by the Rotation Director (MM/DD/YY): |
| Student was notified on the approval? Yes Notes: |
| Rotation Evaluation completed by the Student? Yes No Notes: |
| Rotation Evaluation completed by the Rotation Director? Yes No Notes: |

Appendix IV: Teaching Residency Proposal Form

Please use this form to submit your planned Teaching Residency, in collaboration with the faculty instructor, at least four weeks before the start of the quarter. Your proposal will be reviewed and approved by the program director.

| Submission Date (MM/DD/YY): |
|---|
| Your Name: Your answer |
| Please indicate the academic quarter for which you are proposing a Teaching Residency: Fall Winter Spring Summer |
| Please indicate the academic year for which you are proposing Teaching Residency: |
| Your answer |
| Faculty Instructor: Your answer Indicate the faculty member with whom you will be conducting Teaching Residency. |
| What is the name of the course you are teaching? Your answer |
| Who are the students (target audiences) for the course you are teaching in this residency? (e.g. master students in global health sciences, Epi, TICR, etc.) Your answer |
| What is the number of units (or equivalent measure) for the course you are teaching in this residency? Your answer |
| For which institute(s)/departments/school is this course conducted? (e.g. IGHS UCSF) Your answer |
| Describe the program and learning objectives of the course you chose for this Teaching Residency: Your answer |
| What topics and teaching skills will you master during this Teaching Residency? |

Your answer

spend and for what duration? Your answer How often will you meet with the faculty instructor for this Teaching Residency? Your answer Is there an identified syllabus/curriculum for this Teaching Residency? Yes (please attach them to this form) No As part of this Teaching Residency, are you required to participate in any of the following? Check all that apply: Developing teaching materials (e.g. syllabus/curriculum) Revising the existing teaching materials Leading small group discussion Give lecture(s) Score/feedback the student assignments Record a video in which you teach a topic for students Moderate session(s) Evaluate the course/class Mange the class website (e.g. UCSF Collaborative Learning Environment - CLE) Other: How this Teaching Residency is being conducted? In-person Online class (e.g. in Zoom etc.) Hybrid (a combination of in-person and online) PROGRAM STAFF USE ONLY Proposal reviewed and approved by Program director name and signature Date of approval (MM/DD/YY): Date of approval by the Faculty Instructor (MM/DD/YY): Student was notified of the approval? ☐ Yes □No Notes: Teaching Residency evaluation completed by the student? Yes □No Notes: Teaching Residency evaluation completed by the Faculty Instructor? Yes ∏No Notes:

What is the time commitment of this Teaching Residency? How many hours/weeks will you

Appendix V: Research Proposal Template

Research Proposal Format

The research proposal is in the format of a standard grant application. Students should choose one of their projects and write a detailed research proposal for this project.

FORMAT

Title

Abstract (one paragraph only, max 300 words)

<u>Proposal</u> (maximum 6 pages, including figures and tables, excluding literature cited and career goals/advising):

- Specific Aims
- Background, Significance, Innovation
- Preliminary Studies
- Experimental Design and Methods (include timetable)
- Analysis Plan
- Human Subjects: Indicate if Human Subjects will be used or not
- Literature Cited (not included in page limit)
- Draft of human subjects research (IRB) application (not included in page limit)
- Explain how this research project is important for your career goals (not included in page limit)
- Advising/Mentoring Plan: Please describe the plan for oversight of this project by each committee members, including the specific role of the primary research advisor (not included in page limit)

Formatting Requirements: Arial font; 11 pt.; minimum 0.5 inch for all margins; no appendices; include page numbers.

Appendix VI: Dissertation Prospectus Template

| Student name: | |
|-------------------------|---------|
| Dissertation title: | |
| Dissertation Committee: | , Chair |
| | |

Anticipated graduation date:

I. Introduction (1-2 pages)

PhD in Global Health Sciences, UCSF

This first chapter should present background and significance of the body of the doctoral work as a whole and frame the research that is presented in a broad global health context. The introduction should demonstrate scholarly review and synthesis of the pertinent literature. Some doctoral work may focus exclusively on research topics that are based in one country or setting; in the introduction, the student should demonstrate knowledge of their research area from a global health perspective. This section should not be a personal narrative, rather an analytic piece framing the research.

II. Paper 1

- a. Paper description (300 word abstract)
- b. Timeline of project

III. Paper 2

- a. Paper description (300 word abstract)
- b. Timeline of project

IV. Paper 3

- a. Paper description (300 word abstract)
- b. Timeline of project

V. Conclusion

Appendix VII: Dissertation Written Product

Content and Page Lengths

- Introduction chapter, 10-15 pages
- Three primary research chapters, 25-50 pages each
- Conclusion chapter, 10-15 pages
- Page lengths assume double spacing, excluding references and appendices

Introduction Chapter

This first chapter should present background and significance of the body of the doctoral work as a whole and frame the research that is presented in a broad global health context. The introduction should demonstrate scholarly review and synthesis of the pertinent literature.

Some doctoral work may focus exclusively on research topics that are based in one country or setting; in the introduction, the student should demonstrate knowledge of their research area from a global health perspective. This section should not be a personal narrative, rather an analytic piece framing the research. All committee members must sign off on the introduction.

Research Chapters

This section is comprised of three or more chapters from original research done during the time of enrollment in the PhD program. The dissertation must be more than simply "publishable research" and must constitute high-quality independent research per the assessment of the committee. Each chapter should be of a quality to be submitted for peer-reviewed academic journal publication. The student should present research of which they are the first author. All committee members must sign off on each research paper.

Conclusion Chapter

While each research chapter will include a section on significance of the specific research presented, this final conclusion chapter is a dedicated space to discuss the broader impact of the research body as a whole. For example, the conclusion chapter might address questions such as: How will you translate these findings into action? How will this research impact the field? What are the implications of your findings, next steps, recommendations? All committee members must sign off on the conclusion.

Appendix VIII: Plagiarism versus Proper Citation

Purpose of this document

This brief document provides guidance on how to avoid plagiarism by way of examples of proper citation and examples of incorrect citation (plagiarism).

What does plagiarism mean?

Plagiarism is the use of another person's ideas, thoughts, theories, or phrasing as though they were your own. In US academia, the accepted view is that all knowledge is derivative, and sources of material from others MUST be properly cited so that the original work can be both credited and retrieved.

Why is this important to IGHS?

Plagiarism is a serious form of academic dishonesty, and the penalties can be severe. The Institute for Global Health Sciences wants students to understand and avoid plagiarism. Below are relatively simple steps to use and cite other people's work appropriately.

Who benefits from this document?

The brief will be of value to *all* students in the doctoral program, but particularly those who may be unfamiliar with the subtleties of scientific writing conventions in US universities. For example, some of you may have been trained in places where it was considered acceptable to use existing materials for your assignments exactly as the materials were written, and you may not have been taught about US conventions on citation.

Examples of plagiarism and proper citation

Dr. William J. Bicknell developed the following "Plagiarism" memo for Boston University School of Public Health students at orientation:

The purpose of this memo is to make clear:

What plagiarism is, how to avoid plagiarism and the consequences of plagiarism

Misunderstanding is widespread about what plagiarism is and whether or not it is a serious offense. It is a serious offense, and should be painstakingly avoided. Acceptable practice on citing sources of information differs as one moves from an academic environment to the world of work. There are also differences in custom between countries and cultures. This memo outlines practices appropriate to a U.S. academic environment.

What is plagiarism? Plagiarism is using someone else's work, words, or ideas without giving them proper credit. An example of plagiarism, and an example of one acceptable way to avoid it, is shown below.

How to avoid Plagiarism. Here are some simple guidelines for avoiding plagiarism:

1. If you use a phrase, sentence or more from any source, you must put them in quotation

- marks and cite the source in footnote.
- 2. If you recount someone else's ideas in your own words (paraphrasing), you must provide a footnote at the end of the passage citing the source of the ideas.
- 3. If you draw on someone else's ideas, even though you neither quote nor paraphrase them precisely, one of the following is called for:
 - A footnote crediting the source of the ideas.
 - A direct reference to the source within the text, for example, "Seligman has repeatedly made the point that," with facts of publication (title, etc.) provided in a footnote or bibliography.

Footnotes should be complete enough to enable the reader to accurately identify your sources. In addition to articles and books, sources may be personal communication, unpublished data, working memos and internal documents. A footnote should cite the author (if no author is named, the organization), as well as the title, date and page number(s). A bibliography, listing your sources but not linking them to specific points in your text, may well be desirable but is not a substitute for footnotes.

The Consequences of Plagiarism

The consequences of plagiarism are serious. Students can be expelled and lose all chance of completing their studies. Even if 99 percent of a student's work has been above reproach, proven plagiarism could easily result in a degree not being granted.

Summary

A good paper typically demonstrates grasp of concepts, originality and appropriate attention to detail. The person who reads your paper assumes that the words and ideas originate with you unless you explicitly attribute them to others. Whenever you draw on someone else's work, it is your obligation to say so. If you do not, you are operating under false pretenses. That is plagiarism.

Original Source

"Tribal pressures affect Kenyans' behavior more than pronouncements arriving from the national seat of government but what ultimately counts is what an individual perceives as in his or her own best interest. For more than 80 percent of Kenya's people who live and work on the land, children are seen as essential to survival and status. This is particularly true for women. Children and young adults provide an extra labor needed during peak planting and harvest times when everyone in the household must work long hours every day. For women, children are essential to lessen their heavy workload throughout the year: in a study of the Akamba tribe, three-quarters of the respondents gave this reason for having children."

From Frank L. Mott and Susan H. Mott, "Kenya's Record Population Growth: A Dilemna of Development, *Population Bulletin*, Vol. 35, No. 3 (Population Reference Bureau, Inc., Washington, D.C., 1980): 7-8.

Plagiarism

Tribal pressures affect the Kenyan woman's behavior more than pronouncements from the capital. She will perceive what is in her best interest. She sees children as essential to her survival and status. They provide the extra labor needed during peak planning and harvest times when everyone in the family must work for long hours.

Properly Footnoted Citation

Why do Kenyans have so many children? Mott and Mott write that "tribal pressures affect Kenyans' behavior more than pronouncements arriving from the national seat of government but what ultimately counts is what the individual perceives as in his or her own best interest." They point out that children are seen as necessary for a woman's livelihood as well as her place in society. Children work on the shamba and assist with all kinds of labor: planting, harvesting, fetching firewood and water.

¹ Frank L. Mott and Susan H. Mott, "Kenya's Record Publication Growth: A Dilemma of Development, "Population Bulletin, Vol. 35, No. 3 (Population Reference Bureau, Inc., Washington, D.C., 1980): 7.

² Ibid.