2023-24 Social and Behavioral Sciences PhD-PHS Curriculum Guide, Procedures, and Guidelines

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Curriculum Guide

Introduction

The Social and Behavioral Sciences (SBS) field of study in the Population Health Sciences (PHS) PhD program provides a common core education addressing issues of Social and Behavioral Sciences. PhD students enroll in coursework and develop expertise in *social determinants of health* which emphasizes the analysis of the major social conditions that affect the health of populations as well as *planned social change* which focuses on the application of theory in the design of intervention programs, as well as on research and evaluation methodology. The program is designed to train researchers in these two areas of study, to understand how they might intersect, and to bring this expertise to their research careers.

SBS Doctoral Competencies

- 1. Critically assess, integrate, and apply behavioral & social theories and paradigms to the design of basic and applied research, with specific attention to:
 - The role of social determinants in health outcomes and health inequities
 - The historical, political, social, and cultural context
- 2. Formulate theory-driven social and behavioral change interventions that are appropriate and responsive to the social and cultural context
- 3. Critically assess and apply principles of research, evaluation, and public health monitoring/surveillance methodology, including quantitative and qualitative methods, to address research hypotheses using a range of research designs. It is expected that students will:
 - Identify, access, manage, and use a range of data sources to support scientific inquiry
 - Apply rigorous approaches to measurement of social and behavioral constructs, with particular attention to inequities
 - Apply rigorous methods to the assessment of community assets and systems and the measurement and monitoring of population health and health inequities
- 4. Understand and apply knowledge of biology and the influence of lifespan factors relevant to public health outcomes
- 5. Understand and apply rigorous, theory-based approaches to research translation for practice, policy, and public health settings, including communication with policymakers, civil society organizations, and the lay public
- 6. Develop advanced professional skills, including:
 - The review, synthesis, and critique of research literature

Social inclusion, diversity, social justice, and ethical principles in research and interventions

PHS PhD Core Requirements

A series of courses are common to all PHS students. General requirements for the Population Health Sciences PhD program are covered in the PHS Curriculum Guide.

Year 1

- PHS 2000 A + Lab*, 4 GSAS ordinal credits
- PHS 2000 B + Lab*, 4 GSAS ordinal credits
- SBS 506, 2 GSAS ordinal credits
- EPI 201 + Lab, 2 GSAS ordinal credits
- EPI 202 + Lab, 2 GSAS ordinal credits

Subsequent years

- RCR Responsible Conduct of Research: Year 1 or Year 2
- TF Teaching Fellowship: Years 2-4 (and 5 if needed)

*Note on PHS 2000 Course Timing & Experience: PHS2000A and B are required and most students will take them in the first year. However, for those without substantial previous biostatistics background, the option exists to take PHS2000A and B the second year and to take a more basic biostatistics course (e.g. BST201, BST210) the first year. We encourage students to discuss their experience in the first three weeks of the course with the course instructors and with their advisors if they feel that they may want to drop the course, and we will support those students in finding alternative course options to further prepare for PHS 2000 A/B in the next fall semester.

Social and Behavioral Sciences Field of Study Requirements:

In addition to required courses for all Population Health Sciences PhD students, the Field of Study includes:

1) Core courses, 2) Additional Field of Study requirements, and 3) Additional Coursework.

1. Core courses for Field of Study

20.5-21 total credits, depending on SBS 980 enrollment length:

Year 1

- SBS 201 + Lab, Society and Health, 2 GSAS ORDINAL credits
- SBS 507, An Advanced Seminar in Theories of Disease Distribution & Health Inequities: History, Politics & Public Health, 2 GSAS ORDINAL credits
- SBS 522, Multi-Level Theoretical Approaches to Health Behavior, 2 GSAS ORDINAL credits
- SBS 980, Doctoral Seminar, 1 GSAS PASS/FAIL credit *at least one semester required, first year students are encouraged to enroll in both semesters.

Year 2

- SBS 245, Social and Behavioral Research Methods, 4 GSAS ORDINAL credits
- SBS 263, Multilevel Statistical Methods: Concept & Application, 4 GSAS ORDINAL credits
- SBS 500, Developing a Research Protocol, 2 GSAS ORDINAL credits
- SBS 523, Advanced Intervention Evaluation Methods, 2 GSAS ORDINAL credits
- Human Biology, Ecology and Physiology*, 2 GSAS ORDINAL credits (course chosen in consultation
 with your advisor from the options below) *The human biology course may be taken in Fall of the
 third year.

Either Year

- Human Biology, Ecology and Physiology: Students must take at least 2 credits of the following options or petition for a different course with advisor's guidance and via the SBS Course Substitution Form.
 - ID 220: An Introduction to Planetary Health (2 credits)
 - HBTM 200: Pathology of Human Disease (2 credits)
 - BPH 210: Pathophysiology of Human Disease (same as EH 208, 2 credits)
 - BPH 208: Human Physiology (same as EH 205, 4 credits)

2. Additional Field of Study Requirements

16 total ORDINAL credits – specific courses should be chosen in consultation with your academic advisor

- 2 GSAS credits in policy, sociology, or social science
- 6 GSAS credits in your chosen area of expertise All doctoral students in the SBS field of study
 are expected to augment the basic requirements with substantial course work appropriate for a
 research orientation and in the topic of their interest.
- 8 GSAS credits intermediate or advanced research methods. In addition to any upper level BST or EPI course at HSPH, the following courses may be counted toward the intermediate/advanced research methods courses (5 credits need to be taken at HSPH.)
 - API 114 & 115: Econometric methods for applied research 1&2
 - ECON 2150: Econometrics II
 - EDU S010B: Designing Surveys and Questionnaires: Principles and Methods
 - EDU S010C: Large-Scale Data Analysis for Complex and Weighted Survey Designs
 - EDU S032: Accumulating Evidence: How to Conduct a Meta-Analysis that Informs Ed
 - Research, Policy, and Practice
 - EDU 2043: Multilevel and Longitudinal Methods
 - EDU S052: Intermediate and Advanced Statistical Methods for Applied Educational
 - Research
 - EDU S061: Statistical and Psychometric Methods for Educational Measurement
 - EDU S090: A1 Structural Equation Modeling
 - GHP 525: Econometrics for Health Policy
 - PSY 2030: Bayesian Data Analysis
 - GHP228: Econometrics Methods in Impact Evaluation

- EDU A164: Program Evaluation and Education Policy
- STAT 140: Design of Experiments
- STAT 293/393: Design of Experimental and Non-experimental Studies
- GOV 2798: Field Experiments for Policy and Program Evaluation
- SOCIOL 2275: Social Network Analysis: Seminar
- SBS 521: Qualitative Data Analysis for Public Health

3. Additional Coursework

12 GSAS credits, up to 8 of which can be independent studies. Students are required to enroll in additional elective courses to fulfill the degree requirement of 2 years [64 credits] of full-time course work.

Note: There are six optional concentrations available to students in the Social and Behavioral Sciences field of study: Maternal and Child Health/Children, Youth and Families Concentration, Health Communications Concentration, Obesity Epidemiology and Prevention Interdisciplinary Concentration, Public Health Leadership Interdisciplinary Concentration, Women, Gender and Health Interdisciplinary Concentration and Nutrition and Global Health Concentration. Courses in these concentrations may be taken as electives.

Phases in the Program for SBS Field of Study PhD Students

Overall, the flow is as follows:

- Year 1: Foundational classes (e.g., methods and theory)
- Year 2: Advanced classes, teaching/research, and a written qualifying exam at the end of the year.
- Year 3: Dissertation planning, oral proposal defense and research; teaching
- Years 4/5: Dissertation research and defense, grant-writing (optional), teaching

PHS-SBS Timetable

Due dates	Milestone
End of 2 nd semester	Submit Prospective Program Form
Beginning of 4 th semester	Submit Tracking Sheet
	Take Written Qualifying Exam for the Field of Study (PQE 1). This covers content from the Social and Behavioral Sciences field of Study core courses and the PHS core courses
Early in the 5 th semester (following successful completion of the written exam)	Final Program Form
Middle of 5th semester	Oral Qualifying Exam (PQE2) Scheduling Form
	Oral Qualifying Exam (PQE2). Students who satisfactorily complete the PQE2 and all

	preceding requirements become doctoral candidates and proceed to conduct original research and prepare and defend their dissertation.
After successful completion of PQE2 and typically by the start of the 6 th semester 1 st DAC meeting must take place by the middle of the 6 th semester, subsequent DAC meetings/progress reports every three-to-six months based on progress and committee's recommendation.	Dissertation Advisory Committee (DAC) Nomination Form DAC meetings/Progress Report Forms
Once defense date has been confirmed with committee/no later than 3 weeks prior to defense.	Dissertation Advisory Declaration Defense Scheduling Form

Procedures & Guidelines for PHS-SBS PhD Milestones

These procedures and guidelines are designed to guide PHS students in Social and Behavioral Sciences through the various milestones during their doctoral program.

Milestone 1: Prospective Program

The Prospective Program is a preliminary plan in which students list the formal coursework they intend to take to support their chosen major and minor fields of inquiry. Students need to declare a minimum of 20 HSPH credits (16 GSAS) to comprise the major field and a minimum of 10 HSPH credits (8 GSAS) for each of the two minor fields. These credits must be outside of the PHS Core courses.

Guidelines

- The proposed major and minors should be directly related to your planned dissertation research. Note that changes to your major and minors (as well as to the listed courses) may be made on the final program if there are changes to your research plans.
- Declared majors and minors must be established academic fields of inquiry with at least one associated peer reviewed journal (e.g. Health Communication).
- Your major should be directly related to your course work in Social and Behavioral Sciences but the exact title of the major is flexible. The majors should reflect a field of inquiry that is reflected in the academic content in the department. Examples of majors and minors are below.
- Your major and minors should be relevant to your dissertation research and should be reflected in the composition of your committee.
- Core PHS courses do not count towards the major or minors. SBS Field of study requirements may count.

- Each course listed in the Prospective Program must be a formal, non-independent study, non-tutorial, non-research course taken for ordinal (i.e. A, A-, B+ or B) credit. Exceptions exist for formal courses that are not offered for an ordinal grade (eg. SBS 980, WGH 207.)
- A grade of B or higher must be obtained in all the courses proposed for majors and minors. Each course counted towards the major or minor must be taken for graduate credit.

Advisor Responsibilities: Your advisor should:

- Assist you with developing your majors and minors based upon your potential dissertation topic and your planned course work
- Critically review your prospective program with you
- Sign the prospective program once you both agree on its contents

Examples of Majors and Minors

Majors:

Social & Behavioral change Social epidemiology Health behavior research Social and behavioral sciences Social & psychiatric epidemiology

Minors:

Methods in SBS

Global health

Quantitative methods

Planned social change

Reproductive health

Quantitative evaluation methods

Methods

Psychosocial factors and health

Public policy

Health Communication

Theoretical approaches to addressing health inequities

Mixed-methods research

Racial disparities

Racial and social inequities in health

Statistical methods

Health inequities in life course epidemiology

Neighborhood effects & spatial analysis

Applied statistical methods

Racial/Ethnic health disparities

Epidemiological methods

Racial, ethnic & social disparities

Social networks

Casual inference

Public health economics
Quantitative research methods
Adolescent health
Quantitative population health science methods
Gender, Aging and Policy
Quantitative methods

Tracking Sheet

Students are expected to keep a record of all required coursework (64 GSAS credits) during the first two years of the program. The PHS-SBS Tracking Sheet, which fulfills this purpose, should be utilized and filled in each semester as the student progresses through the program. The tracking sheet can be found on the <u>SBS</u> Curriculum Guide webpage.

Advisor Responsibilities: Your advisor should:

- Review your tracking sheet each term and provide advice for course work relevant to your planned area of expertise and dissertation topic
- Prior to drop/add deadline of the 4th semester review the tracking sheet and sign to verify that the student will complete all degree course requirements no later than the end of the 4th semester.

Milestone 2: Written Preliminary Qualifying Exam I (PQE I)

It is the policy of the Department of Social and Behavioral Sciences that, to earn a doctoral degree, students should acquire a breadth of knowledge in their fields that extends beyond the subject matter of their dissertation. All doctoral students in the SBS field of study will take written qualifying examinations to demonstrate this knowledge.

Normally, the exam is taken at the end of the 2nd year of doctoral work. Anyone considering a variation to this schedule should discuss it as soon as possible with their advisor. A completed tracking sheet must be submitted to the Department by the end of January prior to taking the exam to signify that the student has completed all necessary course requirements. The exam is given in late May each year. In November of each year, dates and other details are provided to all students who are eligible to take the exam in the upcoming year. Students may access copies of past exams, but are cautioned to understand that the type of questions and content of the exam is likely to change from year to year. Exams are provided as a means of guiding study but do not represent the planned content of future exams.

Milestone 3: Final program

The purpose of the Final Program Form is to provide documentation that the student has developed a major and two minor fields of study that are related to the proposed dissertation research, and to nominate the members of the PQE II/Oral Examination Committee. Following successful completion of the Written Qualifying Exam, each PHS student must complete a Final Program Form in consultation with their advisor early in the 5th semester (usually by Sept 30th) Once completed, the form should be signed by all proposed committee members and the advisor and then emailed to the SBS academic affairs team. The SBS administrators will then review, sign and

forward it to the PHS Program Office for approval. Final approval of the program and committee membership is completed by the PHS Faculty Director who will also assign the committee chair. The PHS Office will then notify the student and the PQE II committee chair (typically within 10 business days). Upon approval, the student should schedule their PQE II.

Procedure for Submitting the Final Program

- Fill out the Prospective/Final Program Form (this can be found on the PHS Sharepoint.) Meet with your advisor to discuss changes from the Prospective Program, goals and objectives for doctoral research, and the selection of the PQE II/Oral Examination Committee members. This discussion typically begins within 2 weeks following successful completion of the Written Examination.
- Request meetings with potential Oral Committee members, and confirm their willingness to participate.
- List all formal coursework in major and minor fields, including grades received.
- List the nominees for Oral Examination Committee. Note: Your primary advisor can and should be part of your Oral Examination Committee. On the form, you should list what topic they will examine you in.
- Write a detailed statement of research goals and objectives including methods and hypotheses for each of the three papers. Suggested length is around five sentences per paper.
- Obtain the required signatures of the proposed committee members.
- Submit the form to the SBS academic administrators for review, approval and submission to the PHS
 Office.

Milestone 4: Oral Preliminary Qualifying Exam II (PQE II)

The PQE II focuses on the dissertation proposal, and is designed to determine that the student is ready to begin conducting their dissertation work. The Exam is administered by a PQE Committee that is created by the student and their advisor. Additional details are available in the PHS Handbook. In most cases, each committee member is a Harvard assistant, associate, or full professor, lecturer or senior lecturer.

The PQE Committee should consist of:

- (1) The student's advisor
- (2) Another SBS faculty member
- (3) A faculty member who has relevant expertise in the student's majors/minors. This person can be an SBS faculty member or could be external to SBS/Harvard. For example, we have had an MIT faculty member whose research is at the intersection and public health and urban planning serve on SBS students' dissertation committees over the years.

Please note that the student's advisor cannot serve as chair of the PQE II. If there are special needs for other expertise, it is possible to appoint a fourth member. Decisions on committee membership should ultimately be made in consultation with your advisor.

While it is preferable that non-Harvard faculty are within reasonable physical proximity, students may continue holding remote PQE IIs, Committee Meetings, and Dissertation Defenses via Zoom, in-person, or as a hybrid for the foreseeable future. As PHS candidates' governing school, GSAS/FAS does not put any limitations on remotely offering these options. As such, the PHS Program will continue to allow PQE IIs, Committee Meetings, and Dissertation Defenses remotely via Zoom, in-person, or as a hybrid of the two – at the discretion and availability of the Committee, advisor, and PHS candidates.

The PHS Program identifies the PQE II Chair from among the nominated committee members (most often it will be the other SBS faculty member appointed to the committee.) The Chair, whose responsibilities are purely administrative (e.g., run the meeting, ensure that required forms are available at the meeting and submitted following the meeting), is typically from the same Field of Study as the student. The student does not have any responsibilities related to selection of the PQE II chair.

Scheduling the PQE II

- Students and their committee members will be notified by the PHS Office when their Final Program has been approved. At this point, the student can begin to complete the PQE II Scheduling form, which can be found on the PHS Sharepoint.
- Select a date and time with all committee members. Advance planning is usually needed to accommodate all members' schedules.
- Create a Zoom meeting or schedule a conference room for the Oral Qualifying Examination through the academic affairs staff.
- Fill out the form and collect signatures from each committee member.
- Submit the form to SBS academic administrators for review and submission to the PHS Office. This must be done at least three weeks prior to the examination.

Procedures leading up to the PQE II

- We expect students will be regularly meeting/communicating with their advisor and committee prior to their PQE II. The following are the formal steps taken to conduct the exam: The final proposed plan of research should be distributed via email to the Oral Examination Committee approximately three weeks prior to the exam. In the unlikely event that updates to proposal are required, they must also be submitted electronically. The research proposal has a formal scientific format and should include plans for three publishable papers that typically includes the following content: research objectives, research approach and description of methods, anticipated findings, anticipated problems and potential mitigation strategies, and the overall significance of the research. Please consult the PHS Handbook for more examples of how to format your research proposal.
- Meet with members of the Examination Committee prior to the examination. The student is encouraged to meet with each examiner to discuss issues or concerns regarding the proposal or academic preparation. This is an opportunity to set expectations for providing members with drafts of the proposal and receiving their feedback. Although there is no set requirement for how much feedback students receive in advance, the Curriculum Committee generally feels that it is in students' best interests to receive feedback on a draft of the proposal prior to the Oral Exam.

Procedures for day of PQE II

- The Chair of the Examination Committee will receive the PQE II Report form through email on the day of the examination.
- Typically, the PQE II includes presentation by the student, followed by questions and guidance from
 the committee (either after each paper or at the end of the presentation, depending on the
 committee's preference). The student leaves the room while the committee determines the exam
 result and then the student is called back in to hear the result. Parallel processes are used on Zoom, as
 needed.

• The PQE II Report Form must be completed by the examiners and returned to the SBS academic administrator by the Examination Committee Chair immediately following the exam. The student has no responsibility in circulating or submitting the form.

Dissertation Advisory Committee (DAC) Nomination Form

Once students have passed their Oral Examination, they may work with their advisors to form a DAC. Selection of members should be completed by the student – in consultation with their advisor, who also serves as the DAC Chair (see below), typically shortly after completion of the Oral Examination. The DAC Nomination Form is emailed to the SBS academic administrators by the student as soon as the DAC has been constituted. After departmental review, the administrator will forward the Form to the PHS Program Office for final approval. Approval is typically granted within 10 days.

DAC Composition Guidelines

- The DAC Chair is the student's official academic advisor.
- In most cases, the DAC consists of the same members of the PQEII examining committee. However, in some cases changes and substitutions may be warranted depending on the direction of the research and/or faculty members' availability. The same rules apply for composition of the PQE II committee in terms of membership.
- All DAC members must be present for all scheduled DAC meetings (remote or in-person) unless
 excused due extenuating circumstances, such as a planned sabbatical, an unexpected family
 emergency, legally-required events, etc. In these cases, a General Petition should be submitted.

DAC Candidate Timeline, Preparation, & Procedures

 The first DAC meeting should take place no later than the first half of the sixth semester (i.e., the start of spring semester for a third-year PHS candidate). Subsequent DAC meetings/progress reports every three-to-six months based on progress and committee's recommendation.

Organization of DAC Meetings

A typical DAC meeting lasts about two hours. The following information applies to the regular quarterly meetings:

- Student Presentation: The most substantial part of the meeting consists of a 30-40-minute presentation by the student of dissertation research. DAC members will typically interject with questions, and the presentation is followed by additional questioning, a discussion of progress and next steps.
- DAC Comment & Feedback for Student: The DAC should comment on student's progress, approach, and results. The DAC should evaluate the student's ability to think independently, including development of hypotheses, practical approaches for testing hypotheses, critical interpretation of data, understanding relevance of results

considering current thinking in the field, and judging how to effectively pursue the line of investigation. As students progress, written drafts of reports and manuscripts will be reviewed in preparation for publication.

 Report on Student Progress: The PHS Faculty Director will review the Progress Report submitted by the chair, but confidential concerns of the DAC should be directly communicated if they arise.

Milestone 5: Dissertation Defense

For all dissertation defenses students will have the choice of either a fully-remote defense via Zoom or inperson and scheduled in an on-campus room, which can also incorporate a Zoom format. The defense committee should decide whether they will all be attending in person or via Zoom.

The PHS Program Office will convene a pre-defense planning meeting for all students anticipating a defense to coach them through defense paperwork, format of the dissertation, and submission and timing deadlines for the FAS Registrar's Office. If unable to attend the group meeting, any student is welcome to request a one-on-one meeting at any time, but all PHS students are required to attend a meeting as part of the defense planning process along with the submission of their dissertation scheduling form.

Students preparing to defend their dissertation must review Harvard University requirements, outlined in the <u>Dissertations</u> section of the Graduate School of Arts and Sciences (GSAS) website. The pre-defense planning meeting will cover this information in-depth during the session.

Defense Scheduling Form should be completed and shared with the PHS Office with a cc: to the Field administrator for final PHS approval. The student name, title, date, time, and place of the Dissertation Defense will be created and announced via e-Mail to members of the Field and PHS community and publicized via poster throughout Harvard Chan ten days prior to the defense date. An electronic version of the announcement will also be shared with the defender ten days in advance for sharing with friends/family/colleagues.

An advance copy of the Dissertation should be sent for review to committee members in advance of the defense date.

In advance of the Dissertation Defense: DAC members should contact the Chair if they foresee any issues with preparedness for the dissertation defense; the Chair may also consult the PHS Program Office, which can consult/receive clarification from GSAS, as needed. The PHS Program Office will reach out to the Committee Chair two days in advance of the defense with instructions for filing final post-defense paperwork, which the student does not see/ receive for official purposes.

During the Dissertation Defense: The PhD candidate will present a public seminar with members of Harvard community and candidate-invited guests – with an option for participants to attend via Zoom whenever possible.

Please note: While the Dissertation Defense is a public forum, questioning of the dissertation candidate during the proceedings is limited to members of the DAC. The public may ask questions only once/if invited, following the candidate's presentation and questioning by the Dissertation Advisory Committee is complete.