

DEGREE REQUIREMENTS

There are six departments in Public Health in which doctoral students may choose a specialty: Biostatistics, Chronic Disease Epidemiology, Environmental Health Sciences, Epidemiology of Microbial Diseases, Health Policy and Management, and Social and Behavioral Sciences. Requirements for each department vary and are outlined under Departmental Requirements. In addition, all candidates for the Ph.D. degree must conform to the requirements of the Graduate School of Arts and Sciences.

REQUIRED COURSEWORK

Generally, the first two years are devoted primarily to coursework. Each student must satisfactorily complete a minimum of ten courses or their equivalent and must satisfy the individual departmental requirements (see Departmental Requirements for course requirements in each department). All first-year Public Health doctoral students are required to participate in a course covering both practical and theoretical issues in research ethics (EPH 600); this course is in addition to the minimum required courses. Additionally, all first-year students are required to enroll in EPH 608, Frontiers of Public Health. Students entering the Ph.D. program with an M.P.H. may be exempt from this course as determined by the director of graduate studies (DGS). The graduate school requires that Ph.D. students achieve a grade of Honors in at least two full-term doctoral-level courses and must maintain a High Pass average. (This applies to courses taken after matriculation in the graduate school and during the nine-month academic year.)

QUALIFYING EXAMINATIONS

The required qualifying examinations are usually taken at the end of the second year of study. In order to meet the different departmental needs, each department has developed a qualifying examination format; details are provided in each departmental program description. The qualifying examinations serve to demonstrate that the candidate has mastered the background and the research tools required for dissertation research. The qualifying examinations are usually scheduled during the spring term of the student's second year or in June of that year.

PROSPECTUS GUIDELINES

Before the end of the spring term of the third year, each student must submit a Dissertation Prospectus, i.e., a written summary of the planned nature and scope of the dissertation research, together with a provisional title for the dissertation. It is strongly recommended that students begin working with their thesis adviser on this process early in the third year. Ideally students should submit the names of Dissertation Advisory Committee (DAC) members during the fall term of the third year and then submit the prospectus during the spring term of the third year. Students must have both the DAC members and the prospectus approved by the end of the third year (May).

The DAC consists of at least three members, including the thesis adviser, who must have a graduate school appointment and will chair the committee. Two members are expected to be Yale School of Public Health faculty, but participation of faculty members from other departments is encouraged. An additional committee member

who is a recognized authority in the area of the dissertation may be selected from outside the university; a supporting *curriculum vitae* must be provided. The student should also submit a one-page specific aims (for the research plan) and a rationale for each committee member. The proposed DAC members must approve the one-page specific aims stating that they have agreed to serve on the committee. The Graduate Studies Executive Committee (GSEC) prefers that students submit this one-page specific aims document for approval prior to developing the prospectus. Once the GSEC approves the student's DAC and specific aims, the student works with the DAC committee to develop the prospectus.

The purpose of the prospectus is to formalize an understanding between the student, the DAC, and the GSEC regarding the scholarship of a proposed dissertation project. The prospectus should:

- Provide a detailed description of the research plan as outlined below, including title, topic, background, significance, study questions, analytic plan, and methods;
- Establish a consensus between the student, the DAC, and the GSEC that the research plan meets the requisite standards of originality, scope, and significance; and
- Formalize the DAC's willingness to work with the student to see the proposed research plan to successful completion.

The prospectus should be written in clear, plain English with minimal jargon, abbreviations, or colloquialisms and is limited to a *maximum* of twenty pages (double-spaced). All tables, graphs, figures, diagrams, and charts must be included within the twenty-page limit. References are not part of the page limit. Be succinct and remember that there is no requirement to use all twenty pages. A prospectus found not to comply with these requirements will be returned without review.

The following format should be used (similar to NIH guidelines):

Please note that students who have written an NIH F30 or F31 or an AHRQ R36 proposal may submit the Specific Aims and Research Strategy of the proposal, and students who have written an NSF Graduate Research Fellowship proposal may submit the respective sections of the proposal.

1. Title of proposed dissertation (can be a working title).
2. Specific aims (one page, may be single-spaced): A self-contained description of the project, which should be informative to other persons working in the same or related fields. State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved.
3. Research strategy: Use the following subsections:
 - a. Significance: This section should place the research project in context and describe the proposed research in a manner intelligible to a nonspecialist. This should include a brief but critical evaluation of the relevant literature and a description of how the proposed research project will advance scientific knowledge and/or technical capability in one or more broad fields.
 - b. Innovation: Explain how the application challenges and seeks to shift current research paradigm(s). Describe any novel theoretical concepts, approaches

or methodologies, instrumentation, or interventions to be developed or used, and any advantage(s) over existing methodologies, instrumentation, or interventions.

- c. Approach: Outline the research project envisioned at this time and sketch out the plan to attain the overall goals of the project. Describe the overall strategy, methodology, and analyses to be used. Include preliminary data, if available. Acknowledge pitfalls and limitations of the research, and if possible suggest alternative strategies.
4. References: Should be included at the end (not counted in the page limit).

The prospectus submitted to the GSEC must be the version approved by the student's DAC and must be submitted together with the Dissertation Prospectus Approval form (or emails from each DAC member acknowledging that they provided input and approved the prospectus).

The GSEC will review the prospectus and may request changes to either the DAC or the prospectus.

Weekly meetings with the chair of the DAC are recommended. Regular face-to-face meetings of the full DAC are invaluable and are required throughout the student's research toward the thesis. The DAC is expected to meet at least twice each year (or more frequently, if necessary) to discuss the progress from the last six months and discuss the plan for the next six months. Since dissertation progress reports at the graduate school are due at the close of the spring term, it is advised that one of the meetings be scheduled in March or April. In doing so, the thesis adviser, student, and DGS will have current information on the student's progress for use in completing the dissertation progress report online. The student schedules the meetings of the DAC. The chairperson of the DAC, i.e., the thesis adviser, produces a summary report outlining progress and plans for the coming months. The document is distributed the student and the DGS for review and comments.

Because the prospectus is required fairly early in the dissertation research, the content of a thesis may change over time, and thus the student should not feel bound by what is submitted. However, major changes to the direction of research described in the prospectus should be discussed with the DAC and approved by the DGS.

ADMISSION TO CANDIDACY

After all predissertation requirements are successfully completed (course requirements for the chosen department, grades of Honors in at least two full-term doctoral-level courses, an overall High Pass average, successful completion of the qualifying examination, and approval of the dissertation prospectus by the GSEC), the student will be admitted to candidacy for the Ph.D. degree. These requirements are typically met in three years. Customarily, students who have not been admitted to candidacy will not be permitted to register for the fourth year. Exceptions must be approved in advance by the DGS and the graduate school associate dean. When students advance to candidacy, the registrar's office automatically submits a petition for the awarding of the M.Phil. degree.