

# Doctoral Program Handbook

Maternal and Child Health

**2021-2022**



## DEPARTMENT HISTORY AND MISSION

The Department of Maternal and Child Health in the Gillings School of Global Public Health was founded in 1950 and is one of the world's leading academic departments for research, teaching and practice. We are dedicated to improving the health of women, children, and families — domestically and globally.

Our Department of Maternal and Child Health is one of 13 Centers of Excellence in Maternal and Child Health Education, Science and Practice funded by the Maternal and Child Health Bureau (MCHB) of the Health Resource and Services Administration (HRSA). The overall mission of these Centers is to support graduate level MCH training to prepare the next generation of public health leaders focused on improving the health of women, infants, children, youth, and their families. Master's and doctoral students trained in the Centers enhance their MCH knowledge and skills and gain practical experience by collaborating with MCH communities and Title V MCH partners.

Our teaching program provides students with broad exposure to maternal and child health population needs and priorities, as well as with the skills to become leaders of tomorrow. The MCH Department offers several different degree programs for students, including an MPH with a concentration in Maternal, Child and Family Health, an MSPH, and a PhD in MCH. We are also one of four departments supporting the MPH Global Health concentration. As a population-focused department, our faculty members represent a rich mix of academic disciplines and topical interests relevant to the health of women, children, and families.

## KEY PERSONNEL

The doctoral program is administered by the Doctoral Program Director (DPD), in coordination with the department's Academic Coordinator (AC) and the Director of Graduate Studies (DGS). The doctoral program is guided by a doctoral committee made up of department faculty members. Committee members are appointed by the chair of the department. The doctoral program director chairs the doctoral committee.

## GRADUATE SCHOOL INFORMATION AND POLICIES

Please be familiar with the following graduate school documents, (1) [Gillings School of Global Public Health Student Resources](#) and (2) [The Graduate School Handbook](#). Other useful information is available on [The Graduate School webpage](#). It is the student's responsibility to be aware of and comply with all requirements in these documents. The Maternal and Child Health doctoral program policies must comply with the UNC Graduate School policies.

## GILLINGS SCHOOL OF GLOBAL PUBLIC HEALTH REQUIREMENTS

Upon entry to graduate school, all public health students are required to take two web- based trainings to prepare them to conduct research with human participants. This includes:

1. Human Research Ethics Training at <http://research.unc.edu/offices/human-research-ethics/getting-started/training/>.
2. Conflict of Interest (COI) Training at <https://apps.research.unc.edu/coi-training/>.

## DEPARTMENT OF MATERNAL AND CHILD HEALTH REQUIREMENTS

*Developing research scholars who are capable of producing and disseminating new knowledge and methods for the public health profession in the field of MCH.*

## FACULTY MENTORS

Students are assigned a faculty mentor upon admission. The department considers student preference, match of faculty and student research interests, and faculty availability in assigning mentors. In rare cases (e.g., change in interests; availability; etc.) a change of mentors may be appropriate. The reason(s) for the change must be submitted in writing, by the student, and is subject to the approval of the Director of Graduate Studies and the Doctoral Program Director.

Student/faculty communication is viewed as a mutual responsibility. Meetings are scheduled on a periodic basis as requested by the student or the faculty mentor. The faculty mentor will serve as the major source of guidance.

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## PROGRAM COMPETENCIES

Upon satisfactory completion of the doctoral program, graduates will be able to:

1. Summarize, synthesize, and critically evaluate research evidence on a maternal and child health (MCH) topic of public health significance.
2. Identify at least one theory--and summarize any related evidence—that links maternal, infant, child, and/or adolescent health to health and well-being at a different period in the life course.
3. Drawing upon MCH-relevant theory, formulate a testable research hypothesis that will make a novel contribution to the knowledge base.
4. Demonstrate familiarity with the main experimental and non-experimental designs and methods used by MCH program evaluators.
5. Understand and appropriately formulate an MCH program impact evaluation protocol.

## AREAS OF PROFICIENCY

Each doctoral student is expected to develop and demonstrate proficiency in at least four areas:

1. Core maternal and child health content
2. Research methods
3. The student's selected minor
4. A chosen substantive area of specialization

The PhD in MCH requires 38 semester hours in MCH major coursework, plus 15 hours of minor coursework, totaling a minimum of **53 credit hours**.

The following are the required courses:

1. **Foundations of Maternal and Child Health I & II (MHCH 701 and MHCH 702; Fall & Spring of Year 1).** PhD students entering without an MPH in MCH (or equivalent knowledge) must take the department's two-semester foundational courses, MHCH 701 & MHCH 702. Course instructors may authorize exemption from MCH foundational course requirements by evidence of equivalent knowledge, or by examination.
  2. **Doctoral Research Seminar (MHCH 801; Fall of Year 1).** The MCH Doctoral Seminar provides a forum for first year MCH doctoral students to hone their skills in developing research questions, searching scientific literature, and preparing comprehensive literature reviews for publication.
  3. **Theoretical Foundations of Maternal & Child Health (MHCH 859; Fall of Year 2).** This seminar reviews theories guiding MCH research and develops skills in preparing research proposals (e.g., F31; dissertation). **Program Impact Evaluation (MHCH 862; Spring of Year 2 suggested).** Program impact evaluation analytic skills seminar. Topics: selectivity, research designs, instrumental variables, difference-in-differences, fixed and random effects, regression discontinuity, matching, and selection models. Required preparation, knowledge of Stata or SAS; proficiency in inferential statistics and multiple regression analysis.
  4. **Research Methods.** All students must complete at least two 3-credit courses in research methods. These courses can be taken outside of the MCH Department but must be approved by the student's faculty mentor and academic coordinator.
  5. **Three Analytic Courses.** One of the analytic courses is MHCH 862, as described above. A minimum of two other quantitative analytic courses that include multivariate analysis are required. These may be taken in the departments of Biostatistics, Epidemiology, Education, Health Policy and Management, Psychology, or Sociology, and must be approved by the student's faculty mentor and academic coordinator. In addition, students are encouraged to take BIOS 511 or HPM 880 if they have little or no experience with a statistical package such as SAS (BIOS 511) or Stata (HPM 880), in their first semester of study. *However, these programming classes do not count toward the analytic course requirements.*
  6. **Teaching Internship (MHCH 840, Section 1, Teaching).** Students must select one of the courses listed in the Teaching Internship section of the handbook for their teaching internship. Students are expected to spend an average of 5 hours per week in the internship. In the semester of the internship students should register for MHCH 840, Section 1 (Teaching) for one course credit. See additional information in the "Teaching Internship" section of this Handbook.
  7. **Research Internship (MHCH 840, Section 3, Research).** Students are expected to spend an average of 5 hours per week in the internship. In the semester of the internship students should register for MHCH 840, Section 3 (Research) for one course credit. See additional information in the "Research Internship" Section of this Handbook.
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8. **Formal Minor.** PhD students must declare a formal minor course of study in another department or program in the School of Public Health or in the Graduate School. Fifteen credit hours of coursework in the minor department are required. (More information is found in the “Formal Minor Structure” section at the end of this Handbook).
9. **Doctoral Dissertation (MHCH 994).** Students must enroll in at least six credit hours of this course after the completion of all other required courses and successful completion of the written comprehensive exam.

After completion of required doctoral courses, students must pass the following in the following order (**more detailed information on each milestone is found at the end of the handbook**):

1. The MCH Written Comprehensive Examination.
2. The First Oral Examination, which is the defense of the dissertation proposal.
3. The Second Oral Examination, which is the defense of the completed dissertation.

### **DOCTORAL CURRICULUM COMMITTEE INFORMATION**

Each doctoral student's course of study is guided by the student's faculty mentor and a Doctoral Curriculum Committee (chaired by the faculty mentor). During the student's first semester, s/he and the mentor will identify potential faculty members to serve on the Doctoral Curriculum Committee. The Doctoral Curriculum Committee must include at least three members. Typically, at least two of the faculty members are full-time faculty in the MCH Department; however, arrangements can be made for other types of MCH faculty to serve on students' doctoral curriculum committees. The department must add additional faculty to the graduate school list on order to be approved to sit on the curriculum committee.

Since all MCH doctoral students are required to take a minor, one of the faculty committee members must be from the minor Department. More information regarding the process of the curriculum committee meeting can be found in the “Doctoral Curriculum Committee Structure” at the end of the handbook.

The responsibilities of Doctoral Curriculum Committee members are to:

1. Advise in the selection of courses during the student's second and subsequent semesters and approve the overall course of study.
  2. Participate in the grading of the Written Comprehensive Examination as appropriate.
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## **ADDITIONAL INFORMATION OF REQUIREMENTS/MILESTONES**

### **DOCTORAL CURRICULUM COMMITTEE STRUCTURE**

Ideally the first formal meeting of the Doctoral Curriculum Committee will be held by the end of the student's first academic semester but should occur no later than the end of the spring semester of the first academic year. The student must declare at least three areas of proficiency, two of which will be “maternal and child health” and “research methods.” The third area should be the student’s substantive specialty area (e.g., perinatal health services, substance abuse, etc.). Substantive specialty areas can be individualized for each student; there is no predetermined list of specialty areas. Students should discuss the selection of their specialty area with their faculty mentor. A fourth area of proficiency is the student’s minor coursework. *(Note: One course may serve in two areas of proficiency. However, courses counting for the formal minor cannot also be counted toward the MCH major requirements.)*

**The student is responsible for completing the forms, obtaining the appropriate signatures, and submitting them to the Academic Coordinator:**

### **Report of Doctoral Curriculum Committee Composition.**

The main purpose of the first Curriculum Committee meeting is to define a course of study that will provide competence in the selected areas. At this meeting, the committee will review the student's previous education and work experience, courses taken in the first semester, and any preliminary ideas for dissertation research. The committee members will also discuss and approve the student's proposed areas of competence.

The student's second curriculum meeting is held near the time of completion of the student's coursework (usually the end of the second year of study). The purpose of this meeting is to determine whether the student is prepared to take the MCH Written Comprehensive Examination. The committee will review the student's progress in coursework and plans for dissertation research. The committee may recommend additional courses before the student can take the Written Comprehensive Examination. The committee must approve the student's readiness to take the exam.

In preparation for both the first and the second Doctoral Curriculum Committee meetings, the student should distribute to all committee members:

- An updated curriculum vitae;
- A list of courses proposed and taken (with grades if available), organized in two ways: chronologically and by area of proficiency; and,
- A brief statement of dissertations interests or plans.

An example set of materials is in **Appendix F**. After each curriculum committee meeting, the student prepares a brief written summary of how the meeting progressed and the important decisions made at the meeting. This summary is reviewed by the faculty mentor and then distributed to all committee members and the Department's Academic Coordinator.

The membership of the student's Doctoral Curriculum Committee may change for a variety of reasons. If this need arises, the student should consult their faculty mentor. The student should follow the same procedures for choosing new members as for choosing the original members. The student and faculty mentor together should notify the Department’s Academic Coordinator of changes in committee membership.

### **FORMAL MINOR STRUCTURE**

The Graduate School requires at least 15 credit hours for the minor. For a minor to be recognized by the Graduate School (i.e., appear on the student's transcript), a student must minor in a **program that offers a graduate degree and an official minor**. However, the MCH Department (but not the Graduate School) also recognizes several unofficial minors, such as in Population Studies, as fulfilling the department's minor requirements. Connect with your academic coordinator or faculty mentor regarding potential minors.

A minor advisor must be selected when a minor is declared. The minor advisor should be a faculty from the department in which the minor is being taken, or a department represented in the program. The minor advisor

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serves on the student's Doctoral Curriculum Committee and also on the Doctoral Dissertation Committee. The minor advisor and faculty mentor cannot be the same person.

The minor coursework plan is approved by the student's Doctoral Curriculum Committee and by the department in which the minor is taken. Students are advised to contact the Academic Coordinator and Director of Graduate Studies in their respective departments to determine required courses for their potential minors, since courses for minors are often taken in sequence and require advanced planning. Students may need to work with faculty in their minor department or take coursework during their third year if minor courses conflict with required MCH courses.

## **TEACHING INTERNSHIP**

**Teaching Internship (MHCH 840, Section 1).** The one credit hour teaching internship is intended to increase doctoral students' instructional skills. Consistent with university policy on credit hours, interns are expected to devote approximately 4-5 hours per week, on average, to teaching activities.

The teaching internship must provide direct teaching experience in the course or associated lab. Other appropriate activities related to learning objectives of the internship might include development of lectures and/or class activities, leading lab discussions, and grading classroom assignments (with instructor review). Teaching interns might also help with course logistics, including setting up the course Sakai site, arranging for course reserve readings, and communicating with students and guest lecturers, etc. In consultation with the instructor and faculty mentor, the student will prepare an internship agreement that indicates at least three SPH or MCH competencies to be addressed in the internship. The agreement should also specify the activities to be undertaken to achieve the stated competencies. For more detailed information regarding the Teaching Internship, please consult with the Director of the Doctoral Program and Academic Coordinator.

## **RESEARCH INTERNSHIP**

**Research Internship (MHCH 840, Section 3).** The research internship is intended to increase doctoral students' exposure to and participation in various stages of research. Collaborations with faculty who are preparing grant proposals have priority as contexts for the fulfillment of the research internship. If no faculty members are working on a grant application during the internship semester, the student will collaborate with a faculty member on other research activities, typically data analysis and manuscript preparation.

Faculty mentor approval is needed where a research internship involves non-SPH faculty. Students should consult with their faculty mentor about options before registering for their internship. Appropriate research activities include, but are not limited to literature search, retrieval, and/or summary; data analysis; writing; and manuscript review. In consultation with the faculty research internship preceptor and faculty mentor, the student prepares an internship agreement that indicates at least three MCH competencies to be addressed in the internship. The agreement should also specify the activities to be undertaken to achieve the stated competencies.

The internships are intended to be learning experiences for the student. The preceptor for the internship should be a full time or adjunct faculty member and are expected to meet with the student on a regular basis, generally, at least weekly. The student is not working for the preceptor or agency but is participating in a course of study. Any product that is the result of the internship is intended to be a direct result of the student's learning experience.

Setting up an internship is the joint responsibility of the student and the faculty mentor. As with any course, there should be a statement of competencies addressed by the internship, and there should be a written agreement between the student and the preceptor, approved by the faculty mentor, which acknowledges the acceptance by the preceptor of the teaching obligation and which specifies the schedule of the proposed internship, the competencies addressed, the expected activities, and the anticipated outcomes(s). A hard- copy signed agreement must be sent to the Academic Coordinator, to be filed in the student's folder, or an electronic copy of the agreement, along with emails from the student, faculty mentor, and preceptor acknowledging acceptance of the agreement, must be emailed to the Academic Coordinator for electronic filing.

Students typically are not compensated for the internships because of the possibility that such compensation

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would change the expectations of the experience from those of a one- credit course to those of a job, where the expectations of the employer take priority over the needs of the student. The compensation for an internship is a credit toward the degree. However, if the proposed preceptor is willing to undertake the obligation to teach the student and to meet the student's expectations with regard to their learning experience as the first priority, then payment for the internship may be considered for approval by the faculty mentor and Director of the Doctoral Program.

## **WRITTEN COMPREHENSIVE EXAMS**

The Maternal & Child Health Department fulfills the Graduate School's written exam requirement by having students take the MCH Doctoral Written Comprehensive Exam.

**Purpose.** The purpose of the MCH Doctoral Written Comprehensive Exam is to document candidates' mastery of the MCH knowledge base and current MCH practice, assess the candidate's knowledge and use of theory, review of the literature, research design, and analytic approaches in addressing an MCH question. (Knowledge gained in MHCH 701, MHCH 702, MHCH 801, MHCH 859, and MHCH 862). Students will be expected to demonstrate that they can integrate the knowledge gained from these various courses to adequately answer the comprehensive exam questions.

**Report of Written Comprehensive Exam.** Completed with the MCH Student Service Manager when the exam has been successfully completed. **The student is responsible for completing the forms, obtaining the appropriate signatures, and submitting them to the Academic Coordinator.**

**Eligibility to Take the Exam.** Students are eligible to take the exam after they have successfully passed all the required MCH core and analytic coursework, and the students' Curriculum Committee members agree the student is ready to take the exam. Students may take the exam if they still have additional coursework for their minor or substantive areas with approval from their committee. In exceptional circumstances, students may take the exam before they have completed required MCH and analytic coursework, with approval from the Curriculum Committee and the student may complete one of their two required internships after the exam with the approval of their curriculum committee.

**Exam Format.** The exam is taken over 3 days; typically, days are consecutive. Allowance for a "break day" is possible with approval of the Director of Graduate Studies and Director of the Doctoral Program. Students have access to one question per day via email or Sakai and will have 6 hours (plus an hour for breaks) to complete each question. Students access a question beginning at 9:00 AM and are required to email their answer by 4:00 PM of that same day or may receive the question at 8:00 AM and email their answer by 3:00 PM. Student preferences regarding times will be accommodated by the Academic Coordinator, and student preferences will be solicited by the Academic Coordinator at least one month before the exam. The exam format is that of a take-home, open-book exam.

If a student perceives ambiguity in a question or has some other problem regarding the question, the student should state their interpretation of the question and answer accordingly. Students may not ask questions to the faculty about the meaning or interpretation of questions.

Students must answer three questions, or one question per day. These questions will be the same for all students.

**Exam Coordination and Development.** The Director of Graduate Studies and the Doctoral Program Director coordinate the exam process. Students who plan to take comprehensive exams should notify the Department's Academic Coordinator at the beginning of the academic year in which they hope to take the exam. The Academic Coordinator provides the Director of Graduate Studies and the Director of the Doctoral Program with a list of these students and the names of faculty who serve as academic faculty mentors for these students.

The exam questions are written by faculty with expertise in the specific area that is addressed in the exam questions.

**Exam Timing.** The Director of Graduate Studies determines the timing of the exam. Typically, the exam is

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offered once a year in late spring when most students are eligible to take the exam. **The Graduate School requires enrollment in the term the comprehensive exam is undertaken; therefore, it must take place before the end of the spring academic semester.** All doctoral students taking the exam must take it on the same dates. Doctoral cohorts are responsible for sending their preference for timing of the exam to the Academic Coordinator and the Director of the Doctoral Program their availability and preference for exam timing by March 31st. It is preferable that the cohort consults with each other and send a single email with the preferences and availability of the group. If this coordination is not possible, or if there are scheduling challenges within a cohort, students should alert the Academic Coordinator, who will help facilitate scheduling. During some years, the exam may be offered at a different time of the year, with this timing determined by the Director of Graduate Studies after reviewing the needs of students and faculty availability for exam preparation/grading.

**Honor Code, Style, and Response Length.** Students must sign an Honor Code pledge for each day of the exam. The Academic Coordinator will send the Honor Code to the students taking the exam one week before the first day of the exam so that students may prepare it for the exam. All exam responses must include citations and a reference list. Reference lists and citations must be in AMA format. All exam responses must be word-processed according to the following specifications: double-spaced, one-inch margins on all four sides, and font size 11. Each exam question includes a suggested length for each part of the response. Answers are limited to six pages, excluding references.

**Grading.** Two faculty members, including one who participated in writing the question, anonymously grade answers to each exam question. All examination answers are individually graded either pass (P) or fail (F). In addition to assigning a grade, each examiner is expected to provide the student with a narrative evaluation. Examination committee members have at least one week to read their assigned questions and submit their grades and narrative evaluations to the Director of Graduate Studies. If, after consulting with each other, the two faculty graders disagree on the grade for a given answer, another faculty member other than the student's academic faculty mentor will be asked by the Director of Graduate Studies to read the answer to determine which grade will prevail. Students are notified of their grades via email from the Director of Graduate Studies, usually within two weeks of exam completion.

**Inadequate Exam Performance Procedures.** Failing one question on the first exam attempt is considered a "conditional pass." Students who fail one question on the first attempt must rewrite their answer to that one question. Failing the re-written question constitutes failing the exam and is reported to the Graduate School. When the first exam is failed, the student must take an entirely new exam (a second test of three new questions) after waiting at least three months. If the student fails one or more questions on the second exam, the entire exam will be considered a failure and is reported to the Graduate School. With two exam failures a student is ineligible for further graduate work in the MCH department.

Failing two or more questions on the first exam attempt is considered as a failure of the exam and is reported to the Graduate School. Students who fail two or more questions on the first exam attempt must take an entirely new, three-question make-up exam after waiting at least three months. If students fail one or more questions on the second exam, the entire exam is considered a failure and is reported to the Graduate School. With two exam failures a student is ineligible for further graduate work in the MCH department. The timing of second exams will be set by the Director of Graduate Studies in consultation with student faculty mentors and will depend on the needs of other students in the department and faculty resources. Students must be registered in the semester in which they take the initial exam, rewrite an individual question, or take a re-test of the entire examination.

## **DOCTORAL DISSERTATION**

**Doctoral Dissertation Committee.** The Doctoral Dissertation Committee is formed shortly **after the student passes** the MCH Doctoral Written Comprehensive Examination. It consists of no fewer than five members, at least three of whom are full-time, tenured, tenure-track, or fixed term members of the regular MCH faculty. One member of the Doctoral Dissertation Committee must be the student's minor advisor. The Chair of the Doctoral Dissertation Committee (i.e., who is typically the student's academic faculty mentor) is the faculty member primarily responsible for assuring that the student meets all the necessary commitments to earn the degree, and as such, must be a full time,

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tenured, tenure-track or fixed term member of the regular MCH faculty. The Dissertation Advisor (i.e., the faculty member who works most closely with the student on their research project) can be from another department or institution. It is possible for a faculty member from another department to chair an MCH dissertation committee, but this must be approved by the student's MCH faculty mentor, the Director of the MCH Doctoral Program, the Director of Graduate Studies in MCH, and the Graduate School. Likewise, if a student's committee membership is not majority MCH faculty, committee makeup must be approved from the aforementioned parties. Students will then need to work with the Director of the MCH Doctoral Program to send a letter to the Graduate School, and the Graduate School must approve this committee membership. Other members of the committee may be "Special Appointees" (fixed term graduate faculty) approved by the Graduate School. Arrangements can also be made for appointed adjunct MCH faculty to participate on dissertation committees.

Although the student cannot officially form their dissertation committee before passing their comprehensive exams, students are encouraged to begin conversations with potential committee members during their second year of study. Furthermore, students are encouraged to use MHCH 859, taken in the fall semester of the second year of study, to work towards an NIH F31 grant to fund their dissertation proposal.

**Fixed Term Graduate Faculty as Members of the Dissertation Committee.** Persons may be appointed to the Graduate Faculty for fixed term membership. Fixed term appointees to the Graduate Faculty may serve on committees of students and, at the request of the program and approval of the Graduate School, may chair a doctoral committee. These appointees may include: faculty emeriti, clinical or research professors, scholars from other institutions, independent scholars, and practitioners. They are appointed for terms not greater than five years in length, though such terms may be renewed for subsequent five-year term.

Nominations for Fixed Term Graduate Faculty are forwarded by program directors/chairs, and must include an indication that the prospective appointee has been reviewed by the academic program and found to have appropriately high qualifications. In the MCH department, the student's academic faculty mentor emails the Academic Coordinator the CV of the nominated person, as well as a brief description of their qualifications and the Academic Coordinator will submit a formal request to the Graduate School. Any restrictions the nominating unit wishes to place on the appointee's service should be specified by the program to the appointee at the time of the nomination. Current Fixed Term appointees are listed here <https://gradschool.unc.edu/policies/faculty-staff/faculty/>.

NOTE: Holding Fixed Term Graduate Faculty status confers no other rights or responsibilities other than the ability to serve on student committees. This is NOT the same as a fixed term appointment for teaching at the University.

**Committee Process.** Prospective Doctoral Dissertation Committee members are invited individually by the student and his/her academic faculty mentor to be members of the committee. Although Doctoral Curriculum Committee members frequently continue to serve on the student's Doctoral Dissertation Committee, usually only those whose expertise is most relevant to the student's dissertation project will remain.

The Doctoral Dissertation Committee is approved by the Director of Graduate Studies using the "Report of Doctoral Committee Composition" form (<http://gradschool.unc.edu/pdf/wdcomm.pdf>) which must be transmitted to the Graduate School for approval. The student begins the process by notifying the Academic Coordinator of the intent to defend and/or the exam date. The student and his/her doctoral committee chair (usually the academic advisor) are responsible for completing the form, obtaining the signatures, and returning the form to the Department's Academic Coordinator, who then submits it to the Graduate School.

Each doctoral student is expected to consult with members of the Doctoral Dissertation Committee at regular intervals throughout the progress of his or her research.

The responsibilities of Doctoral Dissertation Committee members are to:

1. Examine and approve the dissertation proposal, as part of the oral examination required for admission to candidacy.
  2. Consult with the student throughout the progress of the dissertation research.
  3. Participate in the final oral examination in defense of the dissertation.
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**Dissertation Proposal Content.** Each candidate is required to write a dissertation reflecting research of such scope, originality, and skill in presentation as to indicate that the student has a command of the subject and has demonstrated an ability to contribute fresh knowledge or perspectives on the subject. In addition, the dissertation should demonstrate mastery of the research methodology of the discipline. The proposal format and length are determined by the nature of the research, but a typical proposal should include the following areas:

- Abstract
- Specific Aims
- Background and Significance (this section would include a critical literature review and the conceptual/theoretical basis of the project)
- Preliminary Studies (this refers to studies done by the student if pertinent)
- Research Design and Methods (including such topics as the study design, study sample and recruitment procedures, assessment tools and procedures, statistical analysis plan, study timetable, human subjects concern)

When developing the proposal, students should consult with all the members of their committee. In addition, it may be helpful for students to examine past MCH dissertations which are available online via the UNC library.

When the Doctoral Dissertation Committee Chair agrees that the proposal is ready to be defended, it should be distributed at least two weeks (and preferably one month) before the date of the oral examination to all members of the committee. The student should notify every member of the committee of the time and place of the examination. The student must pass the written comprehensive exam prior to scheduling the oral examination / dissertation proposal defense.

**Admission to Candidacy.** This milestone occurs when the student has passed both the doctoral written and oral examination, submitted an acceptable dissertation prospectus, completed all courses required by the major and minor programs, and satisfied any foreign language or language substitute requirements.

**First Oral Examination: Dissertation Proposal Defense.** Usually, the first formal meeting with the Doctoral Dissertation Committee is an oral defense of the dissertation proposal. Ordinarily, the student prepares a 20–30-minute presentation of the proposal, and committee members pose questions and issues for discussion. It is sometimes helpful, however, to hold a preliminary planning meeting to solicit input and discussion from committee members as a group about conceptual or methodological issues relevant to the proposal.

A grade of Pass will be based on the presentation of an acceptable proposal and demonstration of a satisfactory level of knowledge on the dissertation subject and related areas. The student must receive a passing grade from two-thirds of the members of the committee. If the dissertation proposal is not approved (i.e., the student fails the oral exam), the examination is rescheduled after revision or completion of a new dissertation proposal. A student who fails the first oral examination twice becomes ineligible to continue graduate study or to take an examination a third time without special approval by the MCH Department and the Administrative Board of the Graduate School.

**Final Oral Examination: Dissertation Final Defense.** The second formal meeting of the Doctoral Dissertation Committee is the "final oral examination." During this meeting, the committee examines the student on the dissertation for approval. The "defense" is usually composed of an "open" presentation by the student (which anyone may attend), followed by a "closed" meeting which includes only the student and the dissertation committee. **Notice of the defense date and location, which includes a (maximum) one-page abstract of the dissertation, is distributed to SPH faculty at least one month before the defense.** Graduate School guidelines require that no fewer than five persons constitute the committee for the final oral examination. Of these, most of the members of the student's doctoral committee and most of the persons

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approving the student's doctoral dissertation must be full time tenured, tenure-track, or fixed term members of the Graduate Faculty.

**Report of Doctoral Dissertation Committee Composition.** Completed, along with Part 2 of the form, the Report of the Approved Dissertation Project, when Doctoral Dissertation Committee is convened and proposal is successfully defended. **Report of First Oral Comprehensive Examination.** Completed when the student successfully defends dissertation proposal. **The student is responsible for completing the forms, obtaining the appropriate signatures, and submitting them to the Academic Coordinator.**

It is the responsibility of the Dissertation Advisor to see that the draft is in an appropriate form for evaluation by committee members. The committee should have a copy of the draft at least two weeks prior to the final defense. The oral defense is held only after all members of the committee have had an adequate opportunity to review the dissertation. The committee may, at the time of the final oral examination (but not later), require alterations and corrections. The Dissertation Advisor is responsible for verifying that the changes required by the committee have been made but may delegate this responsibility to the committee members who imposed the requirements. A student passes the final oral examination only upon approval of at least two-thirds of the members of the examining committee, including a majority of the MCH members. If a second defense is needed, it must occur within the original eight calendar years allowed for completion of the doctoral program. A third defense is allowed only with special approval of the MCH Department and the Administrative Board of The Graduate School.

**Dissertation Format.** Students in MCH have three dissertation format options. One is the traditional monograph. The second and third options are variations on a manuscript format. For the manuscript format, a student may choose to do a three-paper dissertation or to do a two-paper dissertation, each with an opening and closing chapter. With the two-paper format, at least one of the papers must be submitted to a peer- review journal before the final dissertation defense. This submission must be documented by a confirmation letter or email from the journal editor; documentation should be provided to the dissertation chair by the time of the final defense.

Some studies that offer data for secondary analysis require that any manuscripts based on those data be reviewed and approved by a parent study oversight committee before submission to a peer-review journal. In some instances, significant lead time may be required to complete the review and approval process. Students selecting the two-paper option should investigate the parent study's procedures on this issue early on, so that any requirements of the parent study may be factored into the defense time frame. Requests that manuscript submission to the parent study's oversight committee substitute for journal submission (in exceptional circumstances) must be individually reviewed and approved by the Doctoral Committee.

**Selecting the Dissertation Format.** In selecting the format, the student must consult with her/his faculty mentor and dissertation committee to determine the most appropriate format, given the dissertation subject matter and organizational possibilities. Choice between the two and three paper option should be based on the number of research questions that merit separate treatment in "stand alone" manuscripts. There should be agreement between the student and committee at the end of a successful oral defense of the proposal as to what the format will be. For the manuscript formats, it is acceptable for students to submit journal length papers that are formatted according to target journal requirements. However, the student should confirm that their selected format conforms to Graduate School specifications regarding format and content (see below). For the manuscript formats, students should use additional sections or appendices to provide the detail traditionally included in a monograph but not journal articles. For example, an introductory chapter – typically based heavily on the dissertation proposal – would provide the detailed literature critique that is not usually included in empirical journal articles. A closing chapter would synthesize findings across dissertation papers and discuss their implications for future research, practice, and/or policy.

**Authorships on Dissertation Papers.** Conventions vary across disciplines, but the collaborative nature of public health typically leads to committee co-authorships on dissertation manuscripts. The dissertation chair/faculty mentor is usually a co-author on all publications derived from the dissertation. Other committee members may also serve as co-authors, depending on their preferences and the significance of their contributions to the manuscripts. Dissertation chairs and students should collaborate on the negotiation of authorship roles, with the chair and/or faculty mentor leading this process as needed. Early discussion and

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agreement on authorship is advisable, although progression through dissertation development and writing may lead to later, mutually agreed upon, changes in responsibilities and authorships.

**Dissertation Submission Guidelines.** Dissertations must be submitted to the Graduate School according to the schedule in the Calendar of Events (see *Graduate School Record*). Dissertations must be prepared in accordance with the standards in *The Graduate School Theses and Dissertation Guide*, available from the Graduate School at the following website: <http://gradschool.unc.edu/etdguide>. On matters of form, the student should also consult published manuals of style, and for manuscript format dissertations, journal style requirements. Approved technical processes for reproducing special materials or for reproducing the entire thesis or dissertation are described in the Graduate School's *Guide*. All dissertations are submitted electronically to the Graduate School. **Graduating students should also submit the dissertation cover page, which includes the final dissertation title, to the MCH Department's Academic Coordinator and to the Administrative Assistant to the Department Chair.**

**The IRB.** All student research must be reviewed by a member of the UNC Non-Biomedical Institutional Review Board for the Protection of Human Subjects (IRB), which determines whether the proposed research is exempt from IRB review (not human subject research, NHR), qualifies for expedited review, or requires full board review. Regardless of the kind of review, all applications use the same submission form. Some students will collect their own primary data, and others will analyze data collected by someone else (secondary data). Because it is not always clear whether secondary data analysis constitutes human subjects research for IRB purposes, students proposing secondary analyses must submit an application form. Go to <http://irbis.unc.edu> to submit your application to the IRB.

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## SAMPLE PLAN

Students should work with their academic coordinator and faculty mentor to determine the most appropriate sequencing for their goals and needs.

<b>Fall of 1<sup>st</sup> Year</b>		
MHCH 701	3	Foundations of MCH (if master's was not in MCH)
MHCH 801	3	Doctoral Seminar
BIOS 600	3	Principles of Statistical Inference*
EPID 600	3	Principles of Epidemiology for Public Health* OR
or EPID 710	5	Fundamentals of Epidemiology*
BIOS 511	3	Introduction to Statistical Computing and Research Data+ OR
or HPM 880	1	Mathematical and Stata Tutorial+
XXX	X	Minor Coursework (if BIOS/EPI coursework was completed during Master's)
<b>Spring of 1<sup>st</sup> Year</b>		
MHCH 702	2	Foundations of MCH (if master's was not in MCH)
XXX	3	A course in multivariate statistics (usually linear regression)
XXX	3	Minor, substantive, research methods, or elective course
XXX	3	Minor, substantive, research methods, or elective course
<b>Fall of 2<sup>nd</sup> Year</b>		
MHCH 859	3	Theoretical Perspectives on Maternal and Child Health
XXX	3	An advanced course in multivariate statistics
XXX	3	Minor, substantive, research methods, or elective course
XXX	3	Minor, substantive, research methods, or elective course
<b>Spring of 2<sup>nd</sup> Year</b>		
MHCH 862	3	Maternal and Child Health Program Evaluation
XXX	3	Minor, substantive, or multivariate statistics course
XXX	3	Minor, substantive, research methods, or elective course
XXX	3	Minor, substantive, research methods, or elective course

At least one of the required internships (teaching or research) must be completed by the time the student takes their comprehensive exam. Other courses towards minor or elective hours may be taken after comprehensive exams with approval from the Curriculum Committee.

## ADDITIONAL FUNDING INFORMATION

### Gillings School of Global Public Health Resources

Gillings offers various funding resource opportunities for students in the form of awards, scholarships, and jobs: <https://sph.unc.edu/students/financial-aid/> Additionally, information regarding global health internship and funding opportunities can be found here: <https://sph.unc.edu/global-health/ggg-internships-and-funding/>

**Training Program in Reproductive, Perinatal, and Pediatric Epidemiology.** The overall goal of the training program in Reproductive, Perinatal, and Pediatric Epidemiology (RPPE) is to train outstanding researchers and scholars for productive careers in the field. The program cuts across three departments: Epidemiology, Nutrition, and Maternal and Child Health (note: eligibility is restricted to doctoral students with a formal major or minor in epidemiology). Participants must complete a curriculum based on courses in Epidemiology, Biostatistics, Maternal and Child Health, Nutrition and Biology; attend seminars on developing research topics; and conduct research guided by an experienced Program Faculty member (research preceptorship and the dissertation). Students are typically funded for a period of 1 year and then re-apply for subsequent years with maximum funding duration of 3 years. Questions about the program, including how to apply, should be directed to Dr. Julie Daniels.

### UNC Graduate School Resources

The Graduate School awards fellowships for on-campus as well as off-campus dissertation research. The MCH department's internal deadline for receipt of dissertation completion fellowships is **three weeks before** the stated Graduate School deadline. For information about fellowships and Teaching Assistantships and Research Assistantships go to [http://gradschool.unc.edu/fellowships\\_and\\_funding/index.html](http://gradschool.unc.edu/fellowships_and_funding/index.html)

The Graduate School also operates the Graduate Funding Information Center (GFIC), which has online portals to help students search for both internal and external sources of funding. They also offer periodic trainings on how to search for funding. For more information go to <http://gradfunding.web.unc.edu/>. It is highly recommended that students subscribe to the grad funding listserv per the instructions provided at the GFIC site.

### University Resources

University financial assistance is described in the *Graduate School Handbook* and *The Record of the University of North Carolina at Chapel Hill*. The Office of Scholarships and Student Aid (<http://studentaid.unc.edu/>) awards loans and Tuition Enhancement Grants to graduate students who qualify, based on information provided in the Free Application for Federal Student Aid (FAFSA) application form. Application for financial assistance may be made to the University Student Aid Office after January 1 and must be received by March 1 in order to meet the priority deadline. Graduate students must submit the FAFSA (available online at <https://studentaid.gov/h/apply-for-aid> as soon as possible after October 1 and by March 1 for priority consideration.

Students may also be interested in the Office of Information and Communication's newsletter, *Research Support* <http://research.unc.edu/> or the Office of Sponsored Research's website, <http://research.unc.edu/offices/sponsored-research/index.htm>

**Foreign Language Area Studies Fellowships.** Students interested in studying a 'lesser commonly taught language' may also apply for the Foreign Language Area Studies (FLAS) awards. These awards cover tuition, fees, and stipend. They are federally funded by the Department of Education but competitive at the University level. Students undertake language coursework in addition to "area studies" coursework, which can often include existing courses in MCH or the School of Public Health. In order to apply, students must apply through the area studies center of interest. Deadlines are typically in January for the following academic year. For more information, go to <https://areastudies.unc.edu/flasunc/>

**NIH F31 Predoctoral Awards.** These are individual NIH awards for predoctoral trainees. Students enrolled in a doctoral program may apply, with support of the department and faculty mentors. Students should consult with faculty mentors for details. Please see the [NIH parent announcement for](#) additional information.

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**NIH F31 Predoctoral Awards for Minority Students.** These are individual NIH awards. Minority students enrolled in a doctoral program may apply, with support of the department and faculty mentors. Students should consult with faculty mentors for details. Please see the [NIH parent announcement](#) for additional information.

**NIH Minority Supplements to Research Grants.** Supplements are sometimes available to enable faculty holding NIH research grants to appoint a minority student for a research assistantship. Supplements are sought on an individual basis as appropriate. Students should consult with faculty mentors for details.

### **Other Sources of Funding on Campus**

**The Carolina Population Center.** The Carolina Population Center (CPC) provides fellowship support for doctoral study in preparation for careers in population research. Applications are typically due at the end of January (check website for specific date). Further information about the Predoctoral and Postdoctoral Training Programs in Population Research is available on the Center's website (<https://www.cpc.unc.edu/training>).

**Carolina Consortium on Human Development.** The Carolina Consortium on Human Development, housed at the Center for Developmental Science, provides a dissertation support for students working in the area of human development who are completing their doctorates. Applications are due early and require faculty sponsorship. The deadline may change from year to year. Further information is available from <http://cchd.web.unc.edu/>, 100 E. Franklin St., Suite 200, UNC-CH, Chapel Hill, NC 27599- 8100. (Contact by phone (919) 962-6200, email [cchd@unc.edu](mailto:cchd@unc.edu) or visit this website: <http://cchd.web.unc.edu/cchd-predoctoral-training-program/>)

**Cecil G Sheps Center for Health Services Research.** The Cecil G. Sheps Center for Health Services Research awards predoctoral fellowships to students interested in health services research who have completed most of their courses. Applications are available online at <http://www.shepscenter.unc.edu>. Please see the Center's website for deadlines: <http://www.shepscenter.unc.edu/fellowships/nrsa-fellowships/>. Further information is available from the Sheps Center, 725 Martin Luther King Jr. Blvd (Historic Airport Road), CB# 7590, UNC-CH, NC 27599-7590. (Contact Lindsay McCall, Program Coordinator, [lmccall@email.unc.edu](mailto:lmccall@email.unc.edu)).

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### **Federal Sources of Funding**

**The National Research Service Awards (NRSA).** Every Institute within NIH awards NRSA's. The National Institute for Nursing Research, for example, awards NRSA Predoctoral Fellowships to support nurses for supervised research training leading to a doctoral degree in areas related to the mission of the NINR. For more information on awards available from the National Institutes of Health, please see <http://www.nih.gov>.

**Agency for Health Care Research and Quality (AHRQ).** AHRQ provides predoctoral and postdoctoral health services research education support and career development through a variety of programs. Visit <http://www.ahrq.gov/fund/training/trainix.htm>, or request further information from the Director of Planning and Development and the University's Office of Sponsored Research.

### **Other Sources on Campus**

UNC Campus Health Services offers a variety of services to help students cope with the demands of graduate study. Information about these services is available online at

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<http://campushealth.unc.edu/index.php>

The Graduate School's Diversity and Student Success Program aims to support the successful degree completion of each student through targeted academic and professional development programs:

<http://graddiversity.web.unc.edu/>.

There are a variety of services related to research offered through the School of Public Health:

<http://www.sph.unc.edu/research>. (NOTE: some services may only be available for faculty). In addition, the Odum Institute for Research in Social Science offers a series of short courses and a variety of helpful consultation services.

<http://www.odum.unc.edu/odum/home2.jsp>

## RECOMMENDED COURSES

**Independent Study Courses.** A student's Doctoral Curriculum Committee may recommend Independent Study courses to help the student achieve learning goals or to prepare for dissertation research. Students will need to contact relevant faculty members to arrange these courses. As with internships, a learning agreement should be drafted that states the goals of the independent study, activities to be undertaken as part of the independent study, and any "products" (e.g., manuscripts, reading lists, etc.) from the course of study.

**Statistical Computing and Data Management.** Recognizing that statistical computing skills are a prerequisite for MCH research, students are advised to acquire proficiency in SAS, Stata, and/or other types of statistical programming software. Students without previous knowledge and experience in using SAS or Stata are strongly encouraged to enroll in BIOS 511 (for SAS), HPM 880 (for Stata), or an equivalent class. Students without previous knowledge and experience in using Stata are strongly encouraged to enroll in HPM 880 or an equivalent class. Students need a strong foundation in statistical computing and data management to successfully complete quantitative courses and dissertation research.

**Multivariate Statistical Analysis.** Typically, students take statistical analysis courses as part of a multi-course series. Most, but not all, analytical series begin in the Spring and are offered as two or 3 course series. However, some students choose courses from different series to meet their individual needs. Biostatistics, Epidemiology, Health Behavior, Health Policy and Management, Social Work, and Sociology are popular departments that offer series in multivariate statistics. Most series will require BIOS 600 (or its equivalent) as a prerequisite, and some series will have additional requirements. Students should email the relevant department to confirm course sequencing, prerequisites, and availability. Additional coursework in multivariate statistical analysis beyond the two required courses is strongly encouraged. Appendix E contains information about a variety of useful methods courses, but please check with the Department offering the course, as course offerings may change.

**A Course in Which Students Analyze Data and Report Their Findings.** Students are encouraged to enroll in a course or complete projects with faculty through which they can apply their statistical and computing skills. In particular, students are strongly encouraged to collaborate in the development, writing, and publication of peer-reviewed manuscripts.

**Additional Theory Coursework.** MHCH 859 is an introduction to theories that are applicable to MCH topics. Students are encouraged to complete additional coursework that includes significant theoretical content as additional preparation for dissertation development. This is ideally accomplished through minor coursework.

**Auditing Courses.** Audited courses do not count toward degree requirements. See Academic Coordinator for the procedures to submit and Audit form.

**Collaborations with Faculty.** Students are encouraged to seek out opportunities with their faculty mentors and other faculty that will promote professional development. This includes activities such as collaborating in the review of manuscripts submitted to peer-review journals, presenting empirical work at professional conferences, participating in crafting responses to peer-reviewers for journal and grant submissions, and mentoring more junior students.

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## **GRADUATION AND BEYOND**

**Commencement and Doctoral Hooding Ceremony.** In addition to the University and School of Public Health Commencement ceremonies, the Graduate School conducts a hooding ceremony for graduating doctoral students each spring. This ceremony is a long-standing tradition in graduate education in which the faculty mentor/dissertation chair places the hood of the commencement regalia on his/her doctoral student. This ceremonial hooding symbolizes the completion of doctoral training and the special bond between the student and dissertation mentor. Unless the student's dissertation chair requests otherwise, the MCH dissertation committee chair participates in this ceremony with the student. For more information: <https://gradschool.unc.edu/events/hooding/>.

**Alumni Follow Up.** To monitor the effectiveness of the programs we offer, including assessment of areas that need improvement, it is essential for the Department to track where graduates are working or continuing their education after graduation. Toward this end, the Department will send a form to all graduates requesting updated contact information.

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