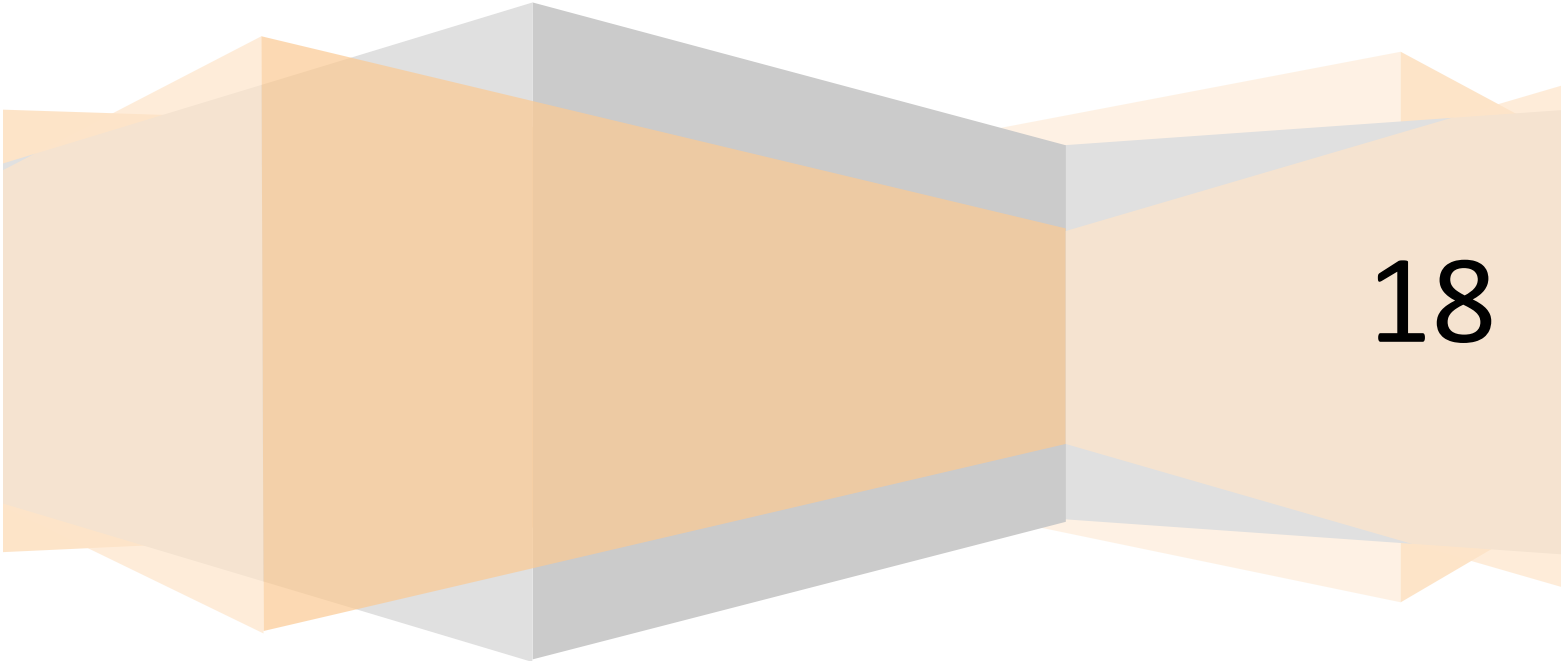


University of Miami Miller School of Medicine

# Epidemiology Student Manual

Graduate Programs in Public Health, 2018 - 2019



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## Graduate Programs in Public Health: Mission, Values, and Goals

### Mission

The mission of the Graduate Programs in Public Health is to develop leaders who can translate knowledge into policy and practice to promote health and prevent disease in human populations.

### Values

The values of the Graduate Programs in Public Health support our mission and guide our collective daily activities. They include:

- **Physical and Mental Health:** A fundamental right of every human being
- **Health Equity:** A commitment to ensure the health of all populations, including the most vulnerable and underserved
- **The Freedom of Inquiry:** To think, to question and to challenge form the basis for all our educational, research and service activities
- **Diversity and Mutual Respect:** Promote and celebrate individual and collective distinctions among our students, staff, faculty and community partners
- **Personal and Professional Integrity:** Ethical behavior guides the activities of our students, staff, faculty and community partnerships
- **Community and Organizational Partnerships:** Participatory collaboration with diverse and fully engaged stakeholders to promote health and social change

### Goals

- To provide engaging educational opportunities preparing leaders to maximize the health and well-being of individuals, communities and populations
- To mobilize a diverse student body to address complex public health issues, including issues affecting vulnerable and underserved populations
- To foster an environment in which students and faculty collaborate on rigorous scientific investigations addressing public health issues, with an emphasis on vulnerable and underserved populations
- To engage with communities, professionals, leaders and others as partners in improving the health of populations, including the most vulnerable and underserved
- To create public health educational opportunities for public health and health professionals and the broader community

## Program Competencies: Epidemiology

Upon completion of the Doctorate in Epidemiology (PhD) degree, all graduates will be able to:

- Describe the core disciplines of public health and how they apply to improving population health
- Recognize potential ethical issues and implement the concepts of ethical conduct of research in epidemiologic studies
- Design epidemiologic studies applying sound methodology and assess the validity of results
- Develop and implement data collection/management methods and tools needed for performing epidemiology investigations
- Apply quantitative and reasoning skills, as well as content-area knowledge to analyze data from epidemiological studies
- Utilize the application of statistical methods that are critical to epidemiologic inquiry; manage and manipulate data sets in statistical analysis software packages including SAS and R
- Identify major chronic and infectious diseases, their general patho-physiology, descriptive epidemiology and risk factors
- Critically evaluate scientific literature and synthesize the outcomes across studies, balancing limitations and contributions of each study
- Articulate research questions that advance scientific knowledge and develop a proposal for extramural research funding
- Present data at academic and professional meetings and submit scientific papers for publication in high-impact peer-reviewed journals
- Convey epidemiologic concepts to students and peers; effectively communicate epidemiologic information to scientists, policy makers and the public
- Conduct an advanced original research project and demonstrate mastery of the topic area
- Read, plan, develop and present epidemiologic data outside their area of mastery
- Provide consultation to health professionals in conducting epidemiological research; and be prepared to work collaboratively with scientists and practitioners in other fields

## Introduction

Welcome to the Epidemiology Doctoral program! As a Doctor of Philosophy (PhD) student in Epidemiology, you will need to familiarize yourself with procedures and requirements that are set forth by both our Department, the Miller School of Medicine's Office of Graduate and Postdoctoral Studies, and the University of Miami's Graduate School. This student handbook is meant to serve as an introduction and basic overview of these requirements as well as provide information on communications and logistics to assure your success as a student. It is important to note that this handbook is meant to provide you with basic information and general requirements of the doctoral program in epidemiology, and is not intended to be used in isolation (but rather in conjunction with the Graduate School catalog). In this regard, it is also highly recommended that you become familiar with the information that is on our Program website,

<http://publichealth.med.miami.edu/graduate/academic-programs/phd-in-epidemiology>, as well as the information on the University of Miami Graduate School's website, located at <http://grad.miami.edu/about-us/welcome-and-overview/index.html>. Many of the required forms (e.g., candidacy forms, forming of dissertation committees) to be completed during your doctoral program can be found on this site.

## Stages in the Doctoral Degree

After admission to the Doctoral Program, there are two major stages in your program to be completed prior to obtaining your PhD degree. These stages are the *Pre-Candidacy* and the *Candidacy* stages. Lack of progress throughout the program without documented reasons may be grounds for program dismissal.

### Pre-Candidacy

As a Pre-Candidate, your major tasks are to complete the program course requirements, and successfully pass the written (and oral) Qualifying Examination requirements. You must also pass either a 3<sup>rd</sup> area requirement or perform as a Teaching Assistant (TA) with its associated required training.

### Candidacy

As a Candidate, your major tasks are to: (1) develop (and have approved by your Committee) a written dissertation proposal that describes your research plan, (2) execute your research plan, and (3) successfully present and defend your dissertation to your dissertation committee, and receive their approval for your dissertation. In addition, it is highly recommended that you prepare and submit manuscripts based on your dissertation for peer-reviewed publication.

In general, the doctoral program takes a total of 3-4 years to complete if a prior Master's of Public Health degree (or other relevant master's degree) has been obtained previously. This time frame largely depends on how soon a student completes and passes his/her qualifying examinations, completes his/her Dissertation Proposal, and successfully completes and defends his/her Dissertation. Although every student differs in their time frame, a typical timeline might be: matriculation in the fall term with a relevant Master's degree or pre-requisite coursework, successful completion of the Qualifying Examination two years later, development and approval by the Dissertation Committee of the dissertation proposal within the following 6-12 months, and completion of the research effort, including the final oral defense and written dissertation within the next 6 to 12 months.

## Time Limits for Degree Completion

A student must complete the Qualifying Examinations within 3 years from the date of first enrollment. All additional requirements must be completed within 8 years from the date of first enrollment.

## Steps for Advancing to Candidacy

The process of transitioning from Pre-Candidate to Candidate is referred to as “advancing to Candidacy.” The two primary requirements for advancing to Candidacy are: 1) acquiring the necessary number of program course credits, and 2) successfully passing the written (and oral) Qualifying Examinations. You must also pass either a 3<sup>rd</sup> area requirement or perform as a Teaching Assistant (TA) with its associated required training.

### Requirement 1: Completing the Course Requirements

As a Pre-Candidate, a total of **50** course credits have to be completed. Students must continually maintain a GPA of 3.0 over all courses. A student will be notified that he/she is not making sufficient progress if his/her cumulative GPA falls below 3.00 in any semester or if a single grade below a “C” is obtained in any course. Notification will be given by written letter from the Graduate Programs Office immediately following the close of the deficient semester. The cumulative GPA must be raised to at least a 3.00 by the end of the next semester in which registration occurs or the student will be required to withdraw from the Graduate Program. No longer than 2 summer sessions or one fall or spring semester may pass without registration once a student has been placed on academic probation.

A minimum of one epidemiology course (i.e., EPH 621, Fundamentals of Epidemiology) and 2 biostatistics courses (i.e., EPH 601, EPH 602) at the master’s level are required prior to entering the doctoral program. In very unusual circumstances, students who do not meet these requirements will have to complete them after being admitted to the doctoral program (which will increase the duration for completing the degree) with a special waiver by the PhD Admissions Committee. As this program is for those with **prior** training in Epidemiology, students should have successfully completed a graduate-level, foundation of epidemiology course. The Epidemiology Program Director will administer a written pre-test assessment on general epidemiology and medical biostatistics before students begin the program. Based on the pre-test assessment, the fundamentals of epidemiology (EPH 621) course and/or the introduction to biostatistics course sequence (EPH 601/602) may be required. **Pre-requisite coursework completed during the doctoral program (EPH 621, EPH 601, EPH 602) will not count as accumulated credit toward completion of the PhD in Epidemiology degree. Epidemiology/public health coursework completed in a previously earned degree (ex., earned MPH and completed Cancer Epidemiology course) cannot count for credit towards earning the PhD degree.**

In addition, based on CEPH accreditation requirements, students entering the epidemiology doctoral program without prior and approved public health training are required to complete EPH 600 Introduction to Public Health during their studies. Credits from this course will not count as accumulated credit toward completion of the PhD in Epidemiology degree.

A minimum of 64 credits (over and beyond Master's degree) is required to earn the PhD in Epidemiology degree. Coursework requirements for the doctoral program include:

Epidemiology Requirements (15 – 18 credits)

- EPH 774: Epidemiological Methods and Reasoning (3 credits)
- EPH 776: Methods in Epidemiology (3 credits)
- EPH 625 or EPH 654: Ethics/Law in Public Health (3 credits)
- EPH 651 or EPH 752 or EPH 772: Research Methods or Advanced Research Methods or Design and Implementation of Epidemiologic Studies (3 – 6 credits)\*
- EPH 700: Professional Development Seminar (1 credit /per year until graduation, minimum 3 credits)

Biostatistics Requirements (19 credits)

- EPH 604 Clinical Trials (3 credits)
- EPH 703: Advanced Statistical Methods I (4 credits)
- EPH 705: Advanced Statistical Methods II (3 credits)
- BST 625: Statistical Computing (3 credits)
- BST 630 Longitudinal Data Analysis (3 credits)
- EPH 751: Survival Analysis (3 credits)

Electives (15 credits)

(9 elective credits must be epidemiology core electives)

*Epidemiology Core Electives (sample list)*

- Basic Pathology (EPH 740) (3 credits)\*\*
- Molecular and Genetic Epidemiology (3 credits)
- Public Health Surveillance Systems (3 credits)
- Survey Methods (3 credits)
- Infectious Disease Epidemiology (3 credits)
- Social Epidemiology (3 credits)
- Cancer Epidemiology (3 credits)
- Behavioral Epidemiology (3 credits)
- Diabetes Epidemiology (3 credits)
- Cardiovascular Disease Epidemiology (3 credits)
- Chronic Disease Epidemiology (3 credits)
- Environmental Epidemiology (3 credits)
- Global Outbreak Investigations (3 credits)

*Other General Electives (sample list only)*

- Community-Based Participatory Research
- Program Evaluation
- Vector Borne Ecology

- Determinants of Health and Health Disparities Across the Lifecourse
- Health Policy
- Courses from the Programs in Biomedical Sciences, Public Health or Biostatistics curriculum with approval from the Program Director
- Courses from other University of Miami Departments or Schools with approval from the Program Director
- Courses from other Universities with approval from the Program Director

\*Students are required to take a minimum of three credits (one course) in this selection, students can elect to complete more than one course

\*\*Basic Pathology (EPH 740) is a required elective for student entering the program without an earned MD degree (or MD/PhD status). Students entering the PhD program with prior medical training or an earned MD degree (or MD/PhD status) having completed basic pathology will select another course for equal credit to complete in place of the PhD basic pathology requirement. Substitute coursework selections will be determined per individual student by the Epidemiology Program Director.

All structured courses toward the PhD program must be taken for a letter grade and cannot be taken pass/fail. Research credits at the 800 level (i.e., EPH 830, 840, and 850) and seminar credits (i.e., EPH 700 Professional Development Seminar) are only completed as pass/fail. Independent credit registrations (i.e., EPH 782 Advanced Independent Study) may be completed with permission of the Epidemiology Program Director and selected faculty supervisor. Grade assignment will be pass/fail (S/U). The option for letter grade assignment in EPH 782 may be discussed with the faculty supervisor and Epidemiology Programs Director, if desired.

The above list of elective coursework is not comprehensive; students may select other electives with permission of the Epidemiology Program Director. Introductory/core MPH courses are not approved selections for credit toward the PhD in Epidemiology degree program. Doctoral students who wish to register for 600 level elective courses must receive approval from the PhD Program Director, prior to registration.

## **Requirement 2: Successfully Passing the Qualifying Examinations**

The Qualifying Examinations are traditionally administered after the second year of the doctoral program, although this time frame is flexible. The exams are offered only one time during a calendar year, usually in May through June. It is recommended that students who plan to take the Qualifying Examinations consult with their faculty advisor and Epidemiology Program Director and discuss preparatory coursework and readiness for taking the examination several months in advance of the scheduled examination date.

In general, the exams are intended to ensure students have sufficient competency in the broad areas of epidemiology and biostatistics to justify their pursuit of a specific area of epidemiologic inquiry. These broad areas are the core areas common to all epidemiology students, including study designs,



quantitative methods, epidemiological reasoning, statistical methods, and other analytic approaches. There are two exams (one for epidemiology and a second for biostatistics). These exams focus on designs/methods of epidemiology and ethics in epidemiology (exam 1), applications to epidemiologic analysis (exam 1), and biostatistical methods (exam 2).

The Qualifying Examinations are not designed to be a recitation of a collection of facts presented in a specific course, but rather is designed to probe the student's ability to identify important issues when presented with a problem, generate a series of arguments relevant to the issues, and be able to formulate a well-reasoned approach based on the arguments being presented. These exams are also designed to evaluate a student's knowledge of basic and advanced epidemiological (e.g., study design, internal validity) and biostatistical methods (e.g., logistic regression, survival analysis) and skills (interpretation of statistical output).

In addition to these two required exams, students may elect to complete a Third Area concentration exam focusing on the student's "area of concentration". The area of concentration exam is intended to assess a student's knowledge of an area of concentration (e.g., chronic disease epidemiology, HIV epidemiology and prevention). Students who choose not to complete this third area exam will have to complete a teaching assistantship requirement (see section on teaching assistantship requirement for additional information). If students decide to complete the Third Area concentration exam, they are highly encouraged to still complete a teaching assistantship for the classroom/lecture experience. Students must inform the Epidemiology Program Director of the Third Area concentration topic at the conclusion of the first year of study (end of first Summer 2/B semester).

### *Qualifying Examination Format and Structure*

There are two required Qualifying Examinations. The first exam will evaluate competencies in epidemiology, while the second will evaluate competencies in biostatistics. Students will be notified of the exam format well in advance of the scheduled exam date so that they can prepare accordingly. Regardless of the exam format, there will always be a written, in-class exam. In-class examinations are restricted, timed and will be proctored by Examination Committee members and program administration. Students are not permitted to access the internet or any electronic devices (eg. cell phones, tablets, laptops), other than what is provided by the program for the exam. During the in-class examination, students are only permitted to exit the exam room for restroom breaks, brief food preparation (students bring their own lunch/snacks), and previously approved accommodations by the relevant university office, as appropriate. Any individual break taken from the exam counts against the total time allotted to complete the exam.

A take-home examination may be included as a second portion of the written examination process. The take-home examination is timed and requires independent work by the student. Students may not consult with other persons during the take-home examination but consultation of literature sources is permitted and sources must be appropriately cited (per University guidelines). Take-home exams are returned to the program via email submission at a prescribed date and time. Failure to meet the required submission deadline will result in points deducted from the exam score.

After completion of the written portion of the exams (for both the epidemiology and biostatistics exam), the Examination Committee will review and grade the examination and then meet with the individual students for an oral examination. The primary purpose of the oral examination is to have the students defend their responses to the written exam, although new questions may be asked by the Examination Committee. The oral examination is generally held within 4 weeks of the written exams. Students are generally notified of the exam results within one week of completing the oral examination.

The format and structure for the Third Area of concentration exam is similar to that of the two required qualifying examinations. There are some differences between the two required exams and the concentration area exam. These differences are listed below:

- 1) The student, in consultation with the faculty advisor must assemble his/her own area of concentration exam committee. The exam committee must consist of two to three University faculty, of which one must be a faculty member of the Department of Public Health Sciences. Faculty with appointments at other universities may serve on the area of concentration Committee with approval from the Epidemiology Program Director.
- 2) The student must have taken a minimum of 9 credits in their area of concentration. All courses must be approved by the student's faculty advisor/Epidemiology Program Director.
- 3) The student in consultation with the Examination Committee will prepare a reading list in the area of concentration in preparation for the exam.
- 4) The Examination Committee can waive the right to have the oral exam following the written portion.
- 5) The Examination Committee has flexibility in the format and the amount of time the student has to complete the exam.

### *Intention to Take the Qualifying Examination and General Timelines*

All students must notify the Doctoral Program Administrator of their intention to take the exams before the end of the spring term. Students who intend to take the exam will be notified with specific details pertaining to each of the required exams (i.e., the epidemiology exam and the biostatistics exam). However, generally, the epidemiology and biostatistics exams are administered between May and June of each calendar year. Generally, the administration of the epidemiology exam is administered prior to biostatistics exam.

### *Grading Process*

Each exam question will be read and graded by all members of the Examination Committee. Each question will be graded on a three point likert scale (0=fail, 1= conditional pass, and 2 = pass). The Examination Committee will collectively assign a final grade for each question for each student and will make a recommendation of pass, conditional pass, or fail. Finally, the Examination Committee will meet to review the exams and approve any conditions for students who received a conditional pass. Following this meeting, the following materials will be made available to students to review in the Office of the Doctoral Program Administrator: a) the overall results, and breakdown of results per content area--pass,

conditional pass, or fail; b) the requirements of a conditional pass or next step for failed exams (if necessary); and c) a copy of student answers with grader's comments (if available).

### *Criteria for Qualifying Exam Grades*

There are three possible outcomes for each of the two (i.e., epidemiology and biostatistics) qualifying exams: unconditional pass, conditional pass, and fail. Students are only permitted to attempt a comprehensive examination a maximum of two times (first attempt, one retake).

- An **unconditional pass** requires a pass on all questions.
- A **conditional pass** requires a pass on 50% of the questions. No more than 25% of the questions can be rated as fail. Students who receive a conditional pass will be required to satisfy a condition in the area in which they received a score of conditional pass and fail. Conditions may include, but are not limited to, taking courses for credit, completing exercises in addition to the course for credit, tutorials, independent remedial work guided by the Examination Committee and/or taking another exam. Any conditions that are imposed must be satisfied before students are admitted to candidacy and can begin working on their dissertation proposal. Furthermore, students should complete the conditions(s) before the qualifying exams are offered again. Failure to meet this deadline will result in retaking the entire examination. Students who receive a conditional pass on their first exam attempt are required to score a full unconditional pass on their second exam attempt. Failure to secure a full unconditional pass on the second attempt results in dismissal from the program.
- A **fail** receives a score of fail on more than 25% of the questions. Students who fail will be required to complete remedial work (e.g. retake classes, other requirements) in a specified timeframe outlined by the Examination Committee and then sit for the exam a second time at a regularly scheduled exam time. Failure to secure a full unconditional pass on the second attempt results in dismissal from the program.

### *Appeals Procedure*

Students may appeal the decision on the results of their exam. Students wishing to do so should submit a formal written request to the Chair of the Qualifying Examination Committee within 30 days of receiving the results of the Qualifying Examination.

### *Preparation for the Qualifying Examination*

The Qualifying Examination, or its parts, should not be regarded as the equivalent of a "final exam" for a specific course, but as a means of integrating the content available through multiple courses the student may have taken as part of their or doctoral training.

The table below lists the specific doctoral courses that are relevant to each of the exams. The list is by no means exhaustive. Foundation coursework (program pre-requisites such as EPH 621, EPH 601, 602) and foundation concepts are important and relevant content areas for the Qualifying Examination.

Additionally, students are required to complete all core and elective coursework prior to taking the Qualifying Examination. Other elective courses relevant to the practice of epidemiology (eg. Cancer Epidemiology, Social Epidemiology, Cardiovascular Disease Epidemiology, Public Health Surveillance Systems) are important content areas for the Qualifying Examination. In rare cases, exceptions can be made on a case-by-case basis with approval from the Epidemiology Program Director. Students should consult with their faculty advisor/Epidemiology Program Director to decide on the best strategy to prepare for the examination.

Content Area	Courses
<b>Epidemiology</b>	<ul style="list-style-type: none"> <li>• Epidemiologic Methods and Reasoning</li> <li>• Methods in Epidemiology</li> <li>• Research Methods/Advanced Methods/Design and Implementation of Epidemiologic Studies *</li> <li>• Ethics in Public Health/Research</li> <li>• Professional Development Seminar</li> </ul>
<b>Biostatistics</b>	<ul style="list-style-type: none"> <li>• Advanced Statistical Methods I</li> <li>• Advanced Statistical Methods II</li> <li>• Survival Analysis</li> <li>• Statistical Computing</li> <li>• Clinical Trials</li> <li>• Longitudinal Data Analysis</li> </ul>

\*relevant content from the research methodology course grouping

## Teaching Assistantship

As previously mentioned, students have the option to complete the Third Area of concentration exam (described above) or completing a teaching assistantship. If the student chooses to complete the teaching assistant requirement (to fulfill the Third Area), then s/he must do so before formally advancing to candidacy (see section below). In addition, students may elect to serve at a Teaching Assistant (TA) to advance their training. Please refer to the Standard Operating Procedures (SOP) for TA Service (PhD Students) for additional information.

Per the Graduate School, Teaching Assistants (TAs) must complete a “New TA orientation” offered by the Graduate School and the Instructional Advancement Center-  
[http://www.miami.edu/gs/index.php/graduate\\_school/new\\_students/orientation/new\\_teaching\\_assistant\\_orientation/](http://www.miami.edu/gs/index.php/graduate_school/new_students/orientation/new_teaching_assistant_orientation/)

Students must complete this seminar before they begin their formal teaching assignment. The topics for the online seminars include (but are not limited to): University policies, procedures and resources, training in sexual harassment awareness, Americans with Disabilities Act, Family Educational Rights and Privacy Act (FERPA), lecturing, leading class discussions, and grading.

## Formally Advancing to Candidacy

When a Pre-Candidate has satisfied all the requirements and is ready to advance to candidacy, the student should complete an Application for Admission to Candidacy for the PhD Form, which is available at <https://grad.miami.edu/policies-and-forms/forms/index.html> and submit this Application through Dynamic Forms. . The Graduate School has strict deadlines for completing the requirements to advance to Candidacy, and it is the responsibility of the student to check the website of the Graduate School and/or speak to the Doctoral Program Administrator regarding these deadlines. Per University policy, no student may receive the degree in the same semester or summer session in which he or she is admitted to candidacy.

### Formation of the Dissertation Committee

In preparation for the Dissertation, students, with consultation and collaboration from their faculty advisor/Epidemiology Program Director, will choose a Dissertation Chair. The student, should then, in consultation and collaboration of their Dissertation Chair (and their faculty advisor, if needed) choose the remaining dissertation committee members. Upon formation of the Dissertation Committee, the Dissertation Committee Form should be completed and submitted to the Graduate School via Dynamic Forms. This form can be found at <https://grad.miami.edu/policies-and-forms/forms/index.html>. If the composition of the Dissertation Committee changes at any point during the dissertation process, students must resubmit the Committee Composition Change Request Form (through Dynamic Forms) to reflect the revisions.

### Composition of the Dissertation Committee

Dissertation committees must have at least **four** members. Other requirements with regards to the composition of the Dissertation Committee Members are as follow:

- 1) The Chair of the Dissertation Committee must have a primary appointment in the Department of Public Health Sciences and a Graduate Faculty appointment with the Graduate Programs in Public Health. For non-stipend students (eg. University full-time employees), the Chair of the Committee must have no financial relationship with the student (e.g., the Chair cannot also be the student's employer).
- 2) At least three of the four members must have a Graduate Faculty Appointment in the Graduate Programs in Public Health.
- 3) The fourth member of the Committee can be an external to the Department or external to the University of Miami. The student must obtain approval from the Dissertation Chair for this fourth member. Additionally, the external member's CV must be submitted with the Admission to Candidacy form, through the Doctoral Program Administrator.
- 4) The Committee must consist of at least one trained epidemiologist (defined as a Ph.D. in epidemiology, a combined MD/MPH, and/or in rare cases, an extensive epidemiological-based research program)
- 5) The Committee must consist of at least one trained biostatistician (defined as a Ph.D. in biostatistics, a combined master's degree in Biostatistics with a Ph.D. in a methods oriented field, and/or an extensive biostatistics-based research program)

## Eligibility for Service on Dissertation Committees

Nominations for dissertation committee service are made by means of the Application for Admission to Candidacy for the Ph.D., which must be signed by the Graduate Program Director, and the Epidemiology Program Director. All nominations must be approved by the Graduate School and are subject to the guidelines of the Graduate School.

## The Dissertation Proposal

In addition to the written Qualifying Examination, doctoral students are required to satisfactorily develop their dissertation proposal. During the defense of the proposal, the student presents their dissertation proposal to the dissertation committee. It is expected that students will give their presentation within 6 to 12 months of successful completion of the Qualifying Examination. Failure to do so shall result in intensive scrutiny regarding the reasons for lack of timely progression. Students are required to be registered for at least one credit during the term in which they present their proposal.

## The Written Dissertation Proposal

The written proposal should include the following elements and should be between 5-10 pages using standard font and format:

- 1) **Summary Abstract** (1 page suggested)
- 2) **Specific Aims and Hypotheses** (1-2 pages suggested) - make clear the specific questions to be investigated in the dissertation
- 3) **Background and Public Health Significance** (1-2 pages suggested) - succinctly review relevant literature to provide a rationale for why the proposed research is important or innovative, and explain the public health significance and implications of the research.
- 4) **Research Methods** (2-4 pages suggested) – describe the study design; participants, reliability and validity of measurements, data analysis plan, and study strengths and limitations.
- 5) **References**

While every proposal should contain all the required elements, the particular emphasis, subject matter and page lengths will depend upon the nature of the proposed research.

## Format and Structure of the Oral Presentation

The oral presentation and submission of a written dissertation proposal implies prior planning and review by the dissertation chair and consultation with other members of the student's dissertation committee. Both the student and mentor have a shared responsibility for informing members of the dissertation committee about progress or modifications in the research protocol.

## The Oral Presentation of the Dissertation Proposal

Although the format and specific content of the oral presentation of the dissertation proposal is up to the Chair and the Committee, the oral presentation of the dissertation proposal should include a statement of research questions and/or hypotheses and the following elements:

- 1) A rationale for the questions including the public health significance or implications

- 2) The degree to which the research draws upon theoretical or conceptual models of physiologic processes, social and behavioral models, economic models or other appropriate conceptual areas
- 3) Adequacy of the study design to address the research questions
- 4) Data gathering approaches - the degree to which the data gathering approaches address threats to validity of the research
- 5) Data analysis plan including implications for inference and generalizability
- 6) Strengths and Limitations of the study

Following the presentation, the Committee members will have an opportunity to ask questions and then decide whether the student has passed, passed with conditions, or failed the dissertation proposal oral defense. It is expected that no more than two attempts at this stage will be required for the student who expects to achieve a doctoral degree. Upon satisfactorily defending the dissertation proposal, the student can begin with the execution of their research plan.

## The Dissertation

After successful development and defense of the dissertation proposal, the student is ready to execute their research plan. This phase generally takes 6 to 12 months. It is expected that the student meet with his/her Dissertation Chair during this time to ensure the accurate and timely completion of their research plan. During the initial meeting, it is important of the student to discuss with his/her Chair whether the Traditional Dissertation Option or the 3-paper option is best suited for the student and his/her topic, although it is strongly encouraged that the student and his/her Chair have this conversation even earlier in the process, if possible (e.g., during the initial development of the dissertation proposal).

Detailed formatting requirements are provided for each format, please see <https://grad.miami.edu/electronic-thesis-and-dissertation/index.html>. Students are strongly encouraged to consult this site often for all stages of their dissertation to ensure all Graduate School requirements are met. Dissertations previously submitted electronically are also available at this site. Please contact the Doctoral Program Administrator for a complete list of student names/dissertation titles available in Epidemiology on this site.

### Traditional Dissertation Option vs. 3-Paper Option

Students are encouraged to speak early on to their Dissertation Chair (and other members, as necessary) to decide whether the traditional dissertation or the 3-paper option is best suited for the student and his/her topic. The traditional dissertation will generally consist of one single document with 5 chapters: (1) introduction, (2) background and significance, (3) methods, (4) results, and (5) conclusions. Students who elect the 3-paper option will have to write three papers in lieu of the traditional dissertation. The three papers have to be deemed by the dissertation committee as high quality papers that are publishable. Students who choose this option must also be aware that the three papers have to be related in some way (although they each have to stand alone in its own merit).

Students selecting the 3-paper option are highly encouraged to also produce the following chapters: (1) introduction, (2) detailed methods, and (3) conclusions. After completion of the Dissertation, the student is ready to defend his/her dissertation. The website provided above gives detailed formatting for both options. Students who elect the 3-paper option need to remember that for the purposes of the Graduate School and earning the degree, they will still be submitting one dissertation document—the “papers” are framed as chapters in the dissertation and they are still responsible for the “traditional” formatting.

### **Scheduling the Dissertation Defense**

After the Dissertation Chair agrees that the student is ready to defend his/her dissertation and all members of the Dissertation Committee have read the dissertation and provided feedback to the Chair and student (generally within 4 weeks of receipt of the dissertation document), the student can schedule his/her dissertation defense with all committee members. Students are responsible for setting their defense date within the stated Graduate School deadline for the semester they plan to defend. A deadline is set and stated on each semester’s Academic Calendar, available at <https://grad.miami.edu/electronic-thesis-and-dissertation/defense-and-submission-deadlines/index.html>.

It is expected that the student e-mail a copy of the dissertation to all Committee members 4-6 weeks prior to the oral defense. After the oral defense date is scheduled, the student is to notify the Graduate Program Administrator as to the defense date of the dissertation. The student will then submit the Defense Notice Form to the Graduate School. (through Dynamic Forms). A copy of the form is provided at: <https://grad.miami.edu/policies-and-forms/forms/index.html>. The Doctoral Program Administrator will e-mail the Department notifying all faculty, students, and staff of the defense of the dissertation. It is the responsibility of the student to work with the Doctoral Program Administrator to secure space for the defense as well as to secure the necessary equipment (e.g., projector), if needed.

### **The Oral Defense of the Dissertation**

The oral presentation of the dissertation (typically 45-60 minutes) should include:

- 1) A rationale for the questions including the public health significance or implications
- 2) The degree to which the research draws upon theoretical or conceptual models of physiologic processes, social and behavioral models, economic models or other appropriate conceptual areas
- 3) Adequacy of the study design to address the research questions
- 4) Data gathering approaches - the degree to which the data gathering approaches address threats to validity of the research
- 5) Data analysis plan including implications for inference and generalizability
- 6) The results for each of the research questions or aims
- 7) A discussion of the study findings
- 8) Conclusions
- 9) Limitations/strengths of the study
- 10) Recommendations for future research



Following the presentation, as per Graduate School requirements, the Chair will ask those non-Committee members present to leave the room. At this time, the Committee will have an opportunity to ask questions about the dissertation, the defense, and other related issues. Following the questions, the student will be asked to leave the room to allow the members of the Dissertation Committee to discuss his or her performance. The Committee will decide whether the student has passed or failed the dissertation defense. Following this decision, the Committee will invite the student to return in order to let them know of the Committee's decision. If the student is not successful in defending the dissertation, the Chair and the Committee members will inform the students as to what the next steps are in his/her program of study. If a student is successful, the Certificate of Defense Form must be completed, signed by the dissertation committee members and returned to the student for inclusion in their final submission of all dissertation documents to the Graduate School.

## Completion and Publication of the Dissertation

There are several steps students must take in the final stretch towards completing the dissertation and getting it published. It is strongly recommended that students visit the Graduate School website at <http://grad.miami.edu/electronic-thesis-and-dissertation/post-defense-essentials/index.html> for more detailed guidance on the parameters for completing the dissertation.

### Formatting Your Dissertation

All doctoral dissertations must be formatted according to University of Miami Graduate School requirements. All formatting requirements are available at <http://grad.miami.edu/assets/pdf/2016-17-formatting-guidelines-4-9-17.pdf>. This site also includes examples, templates and necessary forms required during the dissertation process. Previously submitted dissertations are listed in the University Dissertation Library (EDT).

### Publishing your Dissertation

Students are strongly encouraged to speak to their Chair and other dissertation members about submitting peer-reviewed manuscripts for publication during their dissertation and immediately following their defense. <http://grad.miami.edu/electronic-thesis-and-dissertation/copyright-and-publishing-information/index.html>.

### Deadlines for Completing the Final Requirements

The University of Miami has strict deadlines for each term by which you must have completed all of your final requirements, including turning in the correct number of dissertation copies and electronic submission to the Graduate Schools. These deadlines can be found at <http://grad.miami.edu/electronic-thesis-and-dissertation/defense-and-submission-deadlines/index.html>.

## Additional Requirements for Candidates

In addition to the required coursework, the successful completion of the Qualifying Examination, the teaching assistantship or completion of the Third Area exam, the successful defense of the dissertation proposal, and the successful defense of the dissertation, doctoral students are required to complete the following requirements:

- 1) Students have to attend 70% of all of the Departmental Grand Rounds. The Departmental Grand Rounds consists of a series of educational lectures in the area of epidemiology and public health. Speakers at the Grand Rounds include both Department faculty and speakers from other institutions around the country. A detailed schedule of this coming year's Grand Rounds lecture series can be found in the following link: <http://publichealth.med.miami.edu/department-events>
- 2) Students have to submit at least one first-authored manuscript for peer-reviewed publication during their doctoral program. The manuscript does not have to be accepted for publication (in order to graduate), but does have to be deemed publishable by the student's faculty advisor or mentor.

## Graduate Student Financial Support

The Department of Public Health Sciences has limited resources with respect to student financial support. The University will provide doctoral students with a tuition scholarship during their doctoral program (student must remain in good standing during their studies to receive tuition support). Additionally, students will receive a one-year stipend of \$29,500 (effective June 1, 2018) for their first year of study only. After this time, students must work with their faculty advisor to find funding from a Department faculty member (or another faculty member in other departments) to support their stipend for the remaining years of their doctoral program. Additionally, students are strongly encouraged to work with their faculty mentor to seek their own funding (e.g., F31 or F30 dissertation awards through NIH, fellowships through foundations such as the Robert Wood Johnson Foundation, or other training fellowship across campus such as the fellowships from the Developmental Center for AIDS Research).

Students who are full-time employees and wish to continue to work during their doctoral program are allowed to do so. However, all students (regardless of employment status) must maintain full-time student status during the program (i.e., register for minimum of 9 credits during the fall and spring semesters during coursework completion, and/or 800 level dissertation credit). Additionally, students who elect regular employment (decline stipend status) cannot receive the one-year stipend of \$29,500 or program coverage of the graduate student health insurance policy (if elected).

University employees will be subject to taxes on tuition support provided during their doctoral studies. Employees are encouraged to contact Benefits (305-284-3798) to discuss a plan for tax withholdings each calendar year.

## Website Quick Reference Guide

There are many helpful websites that you can visit, not the least of which is our own Department of Public Health Sciences homepage at <http://publichealth.med.miami.edu>. Below are also links to other useful websites that has pertinent information for doctoral students:

University of Miami Tools/Resources: <https://welcome.miami.edu/tools/index.html>

Graduate School website: <http://grad.miami.edu/about-us/welcome-and-overview/index.html>

Miller School of Medicine, Office of Graduate and Postdoctoral Studies: <http://biomed.med.miami.edu/>

Graduate School Helpful Links and Resources: <http://grad.miami.edu/about-us/resources/index.html>

Doctoral Student and Faculty Forms: <https://grad.miami.edu/policies-and-forms/forms/index.html>