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## Epidemiology MS Thesis Guidelines

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An MS thesis must describe original research conducted by the student. It also involves two oral exams. Epidemiology MS students must do a thesis.

### Definition of a good thesis

A good thesis topic provides the student with an opportunity to apply epidemiology concepts and develop research skills. The thesis should advance knowledge and, ideally, answer one or more important questions. The thesis is an important step in training the student to ask good questions as well as learning how to go about answering them. A good thesis is of publishable quality.

### Criteria for an acceptable thesis

The thesis should report on original research by the student. This requires that the student take total “ownership” of at least a piece of the thesis work. Examples of ways that this can be done include the following:

- Primary data collection – e.g., the student adds data to an existing study or executes a small study on his or her own
- Doing something novel with existing data such as applying a new analytic technique, making novel use of an existing technique, or combining datasets
- Overseeing data collection or management
- Developing a new protocol or way of collecting data
- Executing additional laboratory assays or genetic evaluation of existing samples

Through these activities, the student should understand the basic process of data collection and should gain experience in collaborating with others.

### Timing of committee formation and oral exams

MS students should form their thesis committees by the end of the semester prior to the one in which they plan to graduate. The committee must consist of at least three members. One member must be the student’s academic advisor, although the academic advisor does not have to be the Committee chair. Students should describe their proposed thesis projects to their committee members at the time of committee formation so the members can determine whether topics are suitable.

#### **MS Thesis Committee Composition Rules are:**

- The committee must consist of at least three University of Pittsburgh faculty members, one of which must be the students’ academic advisor.
- Half or more of the members must be on the core faculty list of at least one GSPH department.
- One of the Pitt faculty on the committee must not be on the core list from the student's department.
- Thesis committee chair need not be on the core list of the student’s department.
- Graduate faculty status is not required.

The student’s academic advisor should forward an e-mail to Lori Smith, Epidemiology Student Services Manager and Program Administrator, listing the thesis committee members and the type

of committee being proposed (e.g. MS Thesis). Committee composition review is conducted by Dr. Nancy Glynn, Master's Degree Program Director and Ms. Lori Smith on behalf of the department chair. Once reviewed, Ms. Smith will forward the proposed committee lists to the Pitt Public Health Office of Student Affairs for school-wide approval, and will then notify the students' advisor and the student when the proposed thesis committee has been approved at the departmental and Pitt Public Health levels. **Please note that subsequent changes in committee composition must be similarly approved.**

**NOTE:** If student work involves data, policies, or experiences from an outside agency, organization, or practicum site, they should ensure that they follow the guidelines that may include a requirement to have a member of the agency, organization, or site on their committee. *Any student who will use data or experiences from an experience at the Allegheny County Health Department (ACHD) must include their ACHD preceptor as a member of his/her committee. The agencies with which these members are associated should be identified in the e-mail to Lori.*

MS students are required to have two oral exams, the **Comprehensive** and the **Final Defense**. The exact timing of these exams is at the discretion of the committee chair. The Comprehensive Exam ideally takes place at least 2 months before the last day of term in which the degree is to be granted (it **must** take place at least one month before the last day of term according to SPH policy). A written document should be given to committee members two weeks before this exam. The Final Defense should take place at least 3 weeks before the last day of term to accommodate additional edits. A draft of the written thesis should be given to committee members at least 2 weeks before this exam. All committee members should be reasonably comfortable with the student's progress before allowing the Final Defense to go forward. Comments on the draft following the Comprehensive and the Final Defense should be given to the student within a few days following these exams.

#### **Content of exams:**

**Comprehensive:** Generally, the student presents the literature review and demonstrates how the proposed thesis will fill a void in the existing literature. Preliminary data may be presented. The committee should focus on whether or not the student has the skills to move forward with the thesis work.

The purpose of this exam is to discuss with the committee issues related to project design and analysis. Enough information should be presented so that any concerns of the committee will be raised at this stage.

**Final Defense:** The purpose of this exam is to present the completed thesis work. Note that it is termed "defense" for a reason. The student must be prepared to defend the research against any and all questions, some of which may not have been raised before. This requires the successful candidate to be fully versed in all aspects of the research. To be ready, the candidate must demonstrate a complete understanding of the material in the thesis, be polished in presentation skills and be able to fluently answer questions about the research. He must be able to put material in perspective relative to the existing literature. Knowing the answer to all questions is not as important as knowing how to go about answering them.

## MS THESIS DEVELOPMENT TIME FRAMES

(The Pitt Public Health [Web site](#) identifies *specific deadlines* for each graduation period)

Benchmark	December graduation	April graduation	June graduation	August graduation
Select committee members/ advisors request approval	By end of Summer Term	By end of Fall Term	By end of Spring Term	By end of Spring Term
Submit First Draft <sup>1</sup> Introduction/ methods to committee	2 weeks prior to Comprehensive Exam	2 weeks prior to Comprehensive Exam	2 weeks prior to Comprehensive Exam	2 weeks prior to Comprehensive Exam
Comprehensive Exam	At least 2 months before last day of term	At least 2 months before last day of term	At least 2 months before last day of term	At least 2 months before last day of term
Final Defense	At least 3 weeks prior to school-wide deadline	At least 3 weeks prior to school-wide deadline	At least 3 weeks prior to school-wide deadline	At least 3 weeks prior to school-wide deadline
Final committee sign-off	2 weeks prior to school-wide deadline	2 weeks prior to school-wide deadline	2 weeks prior to school-wide deadline	2 weeks prior to school-wide deadline
<b>Upload final version to D-Scholarship</b>	Determined by school. See Pitt Public Health website for semester-specific deadline <sup>2</sup>	Determined by school. See Pitt Public Health website for semester-specific deadline <sup>2</sup>	Determined by school. See Pitt Public Health website for semester-specific deadline <sup>2</sup>	Determined by school. See Pitt Public Health website for semester-specific deadline <sup>1</sup>

<sup>1</sup> Total number of drafts determined by students' committee

<sup>2</sup> Requests for extensions to complete work on the essay can be made of Pitt Public Health Student Affairs ONLY through Dr. Nancy Glynn, Director of the Master's degree programs. Requests to Dr. Glynn should be made in writing by the students' academic advisor only in extenuating circumstances.

### Conduct of the Oral Exams

When all committee members have convened, the chair asks the candidate to leave the room for a few minutes. At this time, the chair provides a brief description of the candidate's strengths and weaknesses. It is important for the chair to be honest with any concerns that he or she has. This is the chance for the chair to get opinions and suggestions from other committee members. The chair may wish to bring along the candidate's school record which can be signed out from the Student Services office (please request these materials in advance). Permission for this is granted only to the chair of the committee. When the review of the candidate is completed, the candidate is invited back into the room and the exam begins.

The candidate presents materials that have been prepared in consultation with the committee chair. It is important to realize that sufficient time must be left for discussion. While the length of the presentation will vary and is at the discretion of the committee chair, 20 slides usually leaves sufficient time for discussion. After the presentation and question and answer period, the chair asks the candidate to leave again, and the committee privately discusses their decision. Recommendations on how to address weaknesses are provided to the chair who relays the

comments to the candidate. Committee members are encouraged to provide input directly to the candidate as well.

If the committee indicates that the candidate is not ready to pass the exam, the deficient areas are noted and the criteria for a success are provided to the candidate. This rarely happens because the committee chair should have a reasonable sense of where the candidate is and should make sure that he or she is ready for a given exam before it is scheduled. Students who insist on an exam against the advice of their chair should recognize the potential consequences of such an action.

Assuming the candidate passes, committee members sign the Report on Requirements for Master's Degree form. The chair is responsible for bringing this form to the meeting. It can be downloaded from the [school Web site](#).

### **Guidelines for the written portion of the thesis**

The thesis should be written in the format of a journal article which includes an expanded introduction/literature review such that it can be published if of sufficient quality. The abstract is limited to 350 words as per Pitt Public Health policy. The abstract must contain a clear and concise statement of the significance of the paper to the field of public health, specifically using the words, "public health." To learn more about formatting requirements, access information in the school's [Academic Handbook](#).

### **Options when the master's candidate is not performing at a sufficient level**

**Comprehensive Exam:** If the committee has concerns about the ability of a student to complete his or her thesis work, then it will not pass the candidate on the Comprehensive Exam. It can recommend switching the subject matter of the thesis. It is critical that the committee be honest with the student and also open with one another. If the probability of the student completing the work is judged to be low, then it is best for all involved for an alternate path to be identified at this time, such as providing the student with more time or switching topics.

**Final Defense:** If a student fails the final defense, this represents lack of preparation by the student and lack of guidance by the committee. Thus, all committee members should be reasonably comfortable with progress before allowing the defense to be scheduled. If the student insists on going forward without the recommendation of the committee chair, failure is a possibility. If a student fails, he/she may be granted a second attempt at the discretion of the committee chair.

### **Final written paper**

There is often work that must be done after the Final Defense. If committee members indicate that changes to the thesis should be made, they should not sign the thesis signature page until they have seen and approved those changes.

***Students who do not meet school-wide thesis deadlines may not be able to graduate in the term of their choice.***

### **Grading**

Committee members will grade the thesis on a 4-point scale (4=excellent 3=good 2=meets expectations 1=does not meet expectations). The committee should assign an overall score, as

well as scores for various components: understanding of public health importance, review of the literature, grasp of study design and statistical analysis, strength of conclusions and recommendations, quality of writing, and clarity of oral presentation using the [Thesis Grading Form](#). The committee should not approve the thesis unless it is worthy of an overall score of 2 or 3. After all revisions to the thesis are made, the committee should reach a consensus about the final scores, and the committee chair should complete the grading form. A copy of the [Thesis Grading Form](#) should be given to the Student Services Office (Amy Rhodes, [rhodesa@edc.pitt.edu](mailto:rhodesa@edc.pitt.edu), 5116 PUBHLT).

## **Authorship**

If the thesis is to be submitted for publication, committee members are often included as authors on the paper, but this is not a requirement. The primary advisor and student should make this decision and it should be based on the degree to which a given committee member influenced or contributed to the paper.

Time limits should be set for publication of the material following graduation. For example, the advisor and student may decide that if the work is not submitted for publication within 6 months of graduation, the materials will be turned over to the advisor so that the advisor can move forward with the publication.