

8.9 Master's Project

REQUIREMENTS

The use of the word Master's Project signifies a planned undertaking involving studious inquiry or examination. The product of that undertaking is a formal, written, scholarly report that demonstrates writing proficiency; and the ability to critically approach a topic, synthesize, interpret, and successfully convey information to the appropriate audience. The Master's Project provides a culminating experience for the student that allows the student to demonstrate the use of public health principles and competencies.

Students are expected to demonstrate familiarity with the tools of applied research or scholarship in public health practice, the ability to work independently, and the ability to apply skills learned in coursework by completing a Research Paper, Systematic Literature Review, Consultative Report or Grant Proposal. The Project will involve three faculty members: the primary academic advisor (who in some cases will also be the project advisor), the project advisor (if this is not the primary academic advisor), and one or two readers who will be present at the oral exam and may give feedback on the Project before the exam. The Master's Project is worth four credits and should involve a combined total of 160 hours of work (the equivalent of four full-time weeks of work). Note: compared to a traditional Master's Thesis which requires 240 hours of work. The project paper will typically be about 40 pages in length and will cite 15 – 20 references. If you entered the EPPHP with a Public Health Core Concept Certificate you are **required** to take the Certificate Public Health exam (CPH) instead of completing a MPH project.

The student, his/her academic advisor, and the project advisor (if different from the academic advisor) decide how the Master's Project requirement is to be met. The student is responsible for consulting with and acquiring approval from the academic advisor to confirm that the project meets the requirements of their program of study (use the *Master's Project Proposal Form* found in *Appendix A*). The topic and form of the Master's Project depend upon the student's experience and the interests of both the student and the faculty. For example, if the student lacks experience in writing scholarly papers the student may profit from writing a Systematic Literature Review that involves a critical synthesis and interpretation of the literature on a public health topic using validated methodologies. However, those students with demonstrated writing skills and an interest in research might profit from working on a Research Paper involving collaboration with School of Public Health faculty on a data based project (which may use primary or secondary data).

The student's work could culminate in the preparation of an article for potential publication. Guidelines for a Research Paper, Systematic Literature Review, a Consultative Report or a Grant Proposal can be found in *section 8.10*.

Contact Kate Hanson before registering for PubH 7294 Master's Project: Public Health Practice as student specific permission is required.

APPROVAL PROCESS

In order to maximize the benefit from the academic advisor's input, students must have their topic approved by their academic advisor. Approval must be received in writing before work can begin on the project proposal. After receiving the academic advisor's approval on the topic, the student should begin to develop the project proposal. (Use the *Master's Project Proposal Form* – a sample can be found in *Appendix A* of this guidebook.) The proposal sets up a guiding framework

for the project and establishes a timeline for completion that is mutually satisfactory to the student and his/her advisor. The project proposal should include the following:

- Indication of culminating product: Research Paper, Systematic Literature Review, Consultative Report or Grant Proposal
- State the key research question(s) and hypotheses (if applicable) to be addressed.
- Briefly list your objectives for the project
- What is the public health relevance of the project
- Briefly describe the project's methodology.
- Anticipated date of completion
- Budget

The Project Proposal must be approved by the Academic Advisor and, where appropriate, the Project Advisor before beginning the project itself. For projects involving collection of information from people, approval must be obtained from the Committee on the Use of Human Subjects in Research; see *sections 6.9 and 8.11* for more information.

8.10 Master's Project Options

OPTION ONE: CERTIFICATION IN PUBLIC HEALTH EXAM

If you entered the EPPHP with a Public Health Core Concept Certificate you are **required** to take the Certificate Public Health exam (CPH) instead of completing a MPH project. Students are eligible to take the Certificate Public Health Exam after completing 21 credits by the end of Fall term. The 21 credits must include the core concept courses. You may repeat the test if a passing score was not obtained or complete a MPH project.

Certification as a Public Health Professional demonstrates your command of a standard of knowledge and skills in public health; encourages life-long learning; adds credibility to public health profession; increases public health awareness, fosters an environment of professional community and puts you ahead of the curve as a public health professional. To maintain the Certified in Public Health (CPH) status, CPH professionals are required to obtain and document 50 hours of continuing education every two years.

The Certificate Public Health exam is offered in February and the registration is open between August – November. Please plan ahead. For complete information go to <http://www.publichealthexam.org/>. The web site includes registration information and study aids.

The Certificate Public Health exam replaces the MPH project requirement, but not the credits. You may take up to four additional elective credits or expand your field experience or a combination of both. Regarding the field experience, no matter the number of credits, you are required to write a 2-3 page reflective paper on the experience, along with completing the required on-line field experience contract and evaluation.

If you entered the EPPHP with an advanced degree, the above option is also available to you.

OPTION TWO: RESEARCH PAPER

The Research Paper will focus on pertinent questions or issues in public health practice. This Master's Project option provides students with an opportunity to apply research skills to pertinent issues and questions under faculty supervision.

The component parts of a Research Paper are as follows:

- I. Abstract
- II. Introduction
 - A. Purpose of the study
 - B. Statement of the problem and its significance (historical background)
 - C. Review and synthesis of relevant literature (extent of written review dependent on nature of project)
 - 1) Statement of conceptual framework, hypotheses and/or focused research questions, and the underlying rationale for each
- III. Methodology
 - A. Study design
 - B. Sample selection and description of sample characteristics - including nature of response and non-response, as appropriate
 - C. Description of data/information collection procedures, study site and instrumentation, as appropriate
 - D. Analytic technique used - quantitative, analytical techniques to be used
- IV. Results (only the facts) - presentation and analysis of data/information
- V. Discussion
 - A. Study limitations – e.g. methods, data, conceptualization, bias (what types?)
 - B. Consistency with prior research
- VI. Conclusions and recommended actions
- VII. References (APA reference style or appropriate alternative)
- VIII. Tables
- IX. Figures
- X. Appendices
 - A. Data collection instruments and letters
 - B. Institutional Review Board permission (as appropriate)

A Master's Project resulting in a Research Paper may, but need not necessarily involve the collection of primary data by the student. A Master's Project can be completed through secondary analysis of data as well. Projects may be undertaken in conjunction with ongoing faculty research, a student's class, or be carried out in conjunction with a fieldwork experience. Doing research at the experience site can create the opportunity for the student to systematically investigate issues or problems that are of direct relevance to his/her fieldwork organization. Such research in an "applied" mode will then provide an opportunity for the student to wrestle with the issues of knowledge and research utilization in practice or program development. However, this option must be discussed and approved by the Academic Advisor and Preceptor early in the practicum experience and before beginning the Master's Project itself.

OPTION THREE: SYSTEMATIC LITERATURE REVIEW

The Systematic Literature Review will focus on pertinent questions or issues in public health practice. This Master's Project option provides students with an opportunity to apply analytical skills in the synthesis and interpretation of the literature under faculty supervision.

The component parts of a Systematic Literature Review are as follows:

- I. Abstract
- II. Introduction
 - A. Statement of the problem and its significance (historical background)
 - B. Statement of focused research questions and the underlying rationale for each
- III. Conceptual framework
- IV. Methodology (how is the search of the literature being conducted)
 - A. Locating and selecting studies
 - 1) Search methodology
 - 2) Selection criteria
 - B. Quality assessment of studies
 - 1) Evaluation of study designs
 - 2) Evaluation of study data
 - 3) Evaluation of study results
 - C. Data extraction from the studies
 - 1) Outcomes evaluated
 - 2) Data extraction protocol
 - 3) Data extraction method
 - D. Data synthesis from studies - analytic techniques (quantitative, qualitative)
- V. Results
 - A. Studies selected
 - B. Quality of studies
 - C. Findings of studies
 - D. Synthesis of findings
 - E. Assessment of biases
 - F. Limitations
- VI. Conclusions and recommendations - significance to the field of public health
- VII. References (APA reference style or appropriate alternative)

A Master's Project resulting in a Systematic Literature Review can be undertaken in conjunction with a faculty research project, student's class, or be carried out in conjunction with a fieldwork experience. Doing synthesis and analysis of the literature at the placement site can create the opportunity for the student to investigate issues or problems that are of direct relevance to his/her fieldwork organization. Such review in an "applied" mode will then provide an opportunity for the student to wrestle with the issues of knowledge and information utilization in practice or program development. However, this option must be discussed and approved by

the Academic Advisor and Preceptor early in the practicum experience and before beginning the Master's Project itself.

OPTION FOUR: CONSULTATIVE REPORT

The Consultative Report offers students the opportunity to address a real problem faced by a public health agency (public or private) and produce a product for a real client. By necessity, students who choose this option will need to work closely with a community advisor as well as their SPH advisors. The student performs a consultation for the agency and then writes the Consultative Report. This option may emanate from a field experience or it may be separate from the field experience. Production of a Consultative Report will most often involve components of options one and two also, so in some ways, this option is the most comprehensive of the three.

The component parts of a Consultative Report are as follows:

- I. **Executive Summary**
- II. **Introduction**
 - A. Description of the agency (purpose, structure, etc.)
 - B. Description of the problem being addressed and its public health implications
- III. **Process of Consultation**
 - A. Engage with the client and carefully define the problem including the questioning of assumptions
 - B. Identification of the key stakeholders
 - C. Describe your sources of information and data – e.g. literature, primary data collection, secondary data analysis, surveys, interviews
 - D. Collection, summary, and analysis of data
 - E. Feedback of results
 - F. Discussion – including a limited literature review for information relevant to the problem
 - G. Recommended actions and dissemination of these recommendations
 - H. Plans for implementation and measurement
- IV. **References (APA reference style or appropriate alternative)**

Sources of Guidance for a Consultative Report

Block, Peter. Flawless Consulting: A Guide to Getting Your Expertise Used, 2000.

Block points out that there are three skills needed for consulting – technical, interpersonal, and consulting. He then goes on to describe the consulting skills in detail.

Putman, Anthony, Ally Relationships: The Key to Sustained Success for Your Service Business, 2006.

Putman describes three levels of “business” relationship – service source, solution provider, ally relationship.

Schein, Edgar, Process Consultation Revisited: Building the Helping Relationship, 1998.

This book is most helpful when the consultation is focused on a specific process.

OPTION FIVE: GRANT PROPOSAL

Students may have the opportunity to work with a faculty member or outside collaborator in applying for a research grant to explore a public health topic. Learning how to write a successful grant application is a very important skill to possess in the practice of public health. Ideally, such proposals, if funded, may provide additional project opportunities for subsequent MPH students.

The grant proposal should be substantial enough in content that the student has the opportunity to explore the topic to a similar depth of that required for a research paper or literature review. A grant proposal, such as those submitted to the NIH, would be appropriate. Ultimate approval of this project option is subject to the program director.

The components of a grant proposal include the following*:

I. Introduction

II. Research Plan

- A. Specific aims (endpoints)
- B. Background and significance
 - 1. significance to increasing scientific knowledge
 - 2. significance to improving public health
 - 3. review of relevant literature
- C. Preliminary studies
 - 1. provide preliminary data if available
 - 2. critically interpret preliminary results and relate to current proposal
- D. Research design and methods
 - 1. description of research and study design
 - 2. detailed description of methods for work and analysis
 - 3. include charts and tables when appropriate
 - 4. discuss alternatives and handling of negative data

III. Special Considerations

- A. Human subjects research
- B. Animal care and use
- C. Contractual agreements
- D. Consultancies

IV. Budget

V. Bibliography and References

VI. Biographical sketches

VII. Supplemental discussion of public health implications

VIII. References (APA reference style or appropriate alternative)

*Some variation is to be expected depending on the funding agency.

If you realize you need help with statistics, you may contact the U of M Department of Statistics. Tutors are available to hire. <http://www.stat.umn.edu/AroundSchool/tutors.html>

COMPLETION OF THE MASTER'S PROJECT

Students must keep in touch with their academic advisor during the course of the Master's Project. Each Advisor should specify how he/she prefers to work with the student. Students should know that faculty may decline working with a student's project that is out of their area of expertise or if the student's timeline does not work out for the faculty member. Therefore, students are encouraged to seek information and ideas from other faculty members as well. A draft or drafts of the project should be submitted to the academic advisor and/or project advisor for review and comments. These should be incorporated into the final draft of the project, and resubmitted to the advisor and reader. A crucial aspect of the project is to describe the public health implications of the project in terms that are understandable even to lay person. A student desiring publication of the Master's Project should discuss this with the advisor. Master's Projects written in publication format meet the program requirements with prior academic advisor approval. Once the academic advisor has approved a final version of the project, the final draft should be typed and submitted for acceptance. Finally, students must submit one copy of the final approved version of the project; the copy will be retained in the PHP Program Office. No grade will be assigned for PubH 7294 until the student has complied with this request.

8.11 Human Subjects Protections

All students at the University of Minnesota who conduct any research using human subjects are required to submit their research proposal to the University of Minnesota Institutional Review Board (IRB) for approval prior to conducting their study.

If you will be conducting any kind of research involving human subjects for your MPH project, you will need to seek approval from IRB at the University of Minnesota. Examples include mailed or in-person surveys, analysis of a data set containing private information, or observing behavior, just to name a few.

U of M students either completing their work at another institution, agency, or company *or* receiving credit for their work at another institution will also need to be in compliance with the human subjects regulations at that respective location. In these situations, to meet University of Minnesota requirements, there are two options:

- 1) submit an IRB application to the University of Minnesota IRB or
- 2) submit section 1 of the UMN application form along with a copy of your IRB application and approval from another institution with a cover letter to Minnesota explaining that the work will be for academic credit at the University of Minnesota

In all cases, you must receive approval from the University of Minnesota before starting your project research.

You will need to complete the following two training courses prior to application to IRB, so you may want to complete these early in your program. Training information can be found at the following websites:

- 1) CITI: <http://www.citiprogram.org/>
- 2) HIPAA: <http://www.ahc.umn.edu/privacy/privtraining/home.html> (only if you are using private health information (PHI) in your research)

Important websites for IRB information and application:

University of Minnesota IRB: <http://www.research.umn.edu/irb/>

Information for Students: <http://www.research.umn.edu/IRB/guidance/student-researchers.html>

Applying to IRB: <http://www.research.umn.edu/IRB/forms.html>

For most MPH projects, an expedited or exempt review will be appropriate. Please consult with your academic advisor or with an IRB representative for guidance.

*To obtain final approval for an MPH project proposal, students will need to document IRB approval when appropriate. The approval process can take up to two months. This time must be accounted for when developing the proposal timeline. *No contacts with potential or actual study participants or animals, including recruitment, or other research may occur until final IRB approval.* After the outline has been approved, each student should allow a minimum of six months to complete all the tasks involved in preparing the application and getting approval, conducting the project and preparing the final draft.

Research Subjects Protection Program (IRB)

Mayo Mail Code 820

D528 Mayo Memorial Bldg

420 Delaware Street SE

Minneapolis, MN 55455

Phone: (612) 626-5654 Fax: (612) 626-6061 Please see *section 6.11* for IRB procedures and further information.

8.12 Final Oral Examination

All master's degree candidates are expected to pass a final comprehensive oral examination, after submission of the Master's Project.

A committee will examine the student on the content of the master's project as well as questions on the core areas of public health. The examining committee will consist of the academic advisor, a School of Public Health faculty member who also serves as reader of the Master's Project and the PHP major chair or designate. A second focus specialist from the practice community is optional. Final approval rests with the Dean of the School of Public Health. (Two of the committee must have an appointment within the School of Public Health; the third member must have an appointment within the University of Minnesota.)

The student is expected to present a professional presentation on their master's project (20-30 minutes) as part of the final comprehensive oral examination followed by questions. This presentation will be open to guests. A closed meeting between the candidate and the examining committee immediately follows the seminar. This closed meeting may include further questions on the master's project, as well as questions on core public health areas. Upon completion of the examination, the candidate is then excused and a formal vote of the committee is taken on whether the candidate passed the examination. In order to pass the examination, the candidate must receive at least three positive votes. After successful completion of the exam, committee members will sign the student study plan. The signed MPH study plan is forwarded to the PHP Major Coordinator.

Complete the MPH Project Proposal form if you are NOT taking the CPH exam.

PubH 7294 Public Health Practice: Master's Project

MASTER'S PROJECT PROPOSAL FORM

Student' Name _____	Date _____
Project Title _____	
Project Advisor _____	Approved <input type="checkbox"/> Date _____
Academic Advisor _____	Approved <input type="checkbox"/> Date _____
Program Director _____	Approved <input type="checkbox"/> Date _____

1. Project type: ☐ MPH Research Paper ☐ MPH Consultative Report
☐ MPH Grant Proposal ☐ MPH Systematic Literature Review
2. State the key research question(s) and hypotheses (if applicable) to be addressed.
3. Briefly list your objectives for the project.
4. What is the public health relevance of the project?
5. Briefly describe the project's methodology
6. Anticipated date of completion
7. Budget