

MPH Capstone Project Handbook

Medical College of Wisconsin
Institute for Health and Society
Master of Public Health Program
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* The Capstone Project is an evolving course. Please see the MPH program website at <http://www.mcw.edu/mphprogram/CulminatingExperiences/CapstoneProject.htm> for the most up-to-date information and forms. *

MPH Program Contact Information

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Purpose

The Capstone Project, or Culminating Experience, is an essential aspect of the MPH curriculum. The Council on Education for Public Health (CEPH) requires that, "All professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience."

A culminating experience is one that requires a student to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. It will be used as one means by which faculty judge whether the student has mastered the body of public health knowledge and can demonstrate proficiency in the required public health competencies.

Objectives

Specific learning objectives include:

- Apply appropriate public health theory, skills, and knowledge to a public health or community health issue.
- Complete a major written paper on a significant public health or community health issue or topic.
- Demonstrate proficiency in the required public health competencies.
- Demonstrate professional writing and presentation skills.

Prerequisites

Students should have completed all MPH coursework, including the Field Placement, before enrolling in the Capstone Project. However, due to the uniqueness of the Capstone Project and opportunities that may arise, exceptions may be made. Students must submit the Early Capstone Project Request Form to the Program Director in these instances.

Students are required to maintain CITI (Collaborative IRB Training Initiative) certification in the Protection of Human Research Subjects throughout the Capstone Project. The course may be accessed at <http://www.citiprogram.org/>. Upon completion, a copy of the certificate should be submitted to the Program Coordinator.

Master's Paper

An original Master's Paper on a significant public health or community health issue or topic will be the primary component of the Capstone Project. All papers are required to contain a comprehensive literature review. The Master's Paper can take many forms and may include:

- **Program Development.** Students work to develop a program in areas such as health promotion or a community intervention.
- **Program Evaluation.** Students conduct an evaluation of a public or community health program to determine effectiveness and outcomes.
- **Community Assessment.** Students conduct various aspects of a community health assessment.
- **Community Health Planning.** Students develop various aspects of a community health plan.
- **Public Health Policy.** Students research and develop a public policy analysis or an advocacy statement related to a significant public or community health issue.
- **Applied Research.** Students conduct research on a public or community health topic of interest.

Roles and Responsibilities

The Capstone Project is a collaborative effort between the student and the student's Faculty Advisor, who acts as the primary reader of the Master's Paper. A Second Reader will also review and assess the quality of the Capstone Project. The Second Reader may be another faculty member or an individual from the public health practice community with expertise in the topic area.

Students participating in the Capstone Project will be responsible for the following:

- Develop and submit a proposal for the Capstone Project to the Faculty Advisor and Program Coordinator for review and approval.
- Maintain CITI (Collaborative Institutional Training Initiative) certification throughout enrollment in the Capstone Project course.
- Obtain MCW IRB approval if deemed appropriate by the MPH Program.
- Submit drafts of the Master's Paper to the Faculty Advisor and Second Reader for review and comment. Also copy the MPH Program, mph@mcw.edu.
- Submit a final draft of the Master's Paper to the Faculty Advisor within the course guidelines and timeframes. Also copy the MPH Program, mph@mcw.edu.
- Develop and submit a PowerPoint presentation on the findings, outputs, outcomes, and recommendations of the written paper. Also copy the MPH Program, mph@mcw.edu.

The **Faculty Advisor** will be responsible for the following:

- Provide guidance to the student, as needed, in the development of the Capstone Project.
- Review and approve the Capstone Project proposal.
- Act as the Principle Investigator for the student's application to the MCW IRB if deemed appropriate by the MPH Program.
- Review drafts of the Master's Paper and provide guidance, resources, and constructive feedback.
- Evaluate the Master's Paper and submitted presentation, assess competency achievement, and assign the final grade for the Capstone Project course.

The **Second Reader** will be responsible for the following:

- Review drafts of the written paper and provide guidance, resources, and constructive feedback.

The **Program Coordinator** will be responsible for the following:

- Fulfill administrative aspects of the Capstone Project such as tracking and maintaining Capstone Project forms, monitoring student progress, updating program materials and website, and maintaining data.
- Act as resource for students, Faculty Advisors, and Second Readers.

Products

Proposal

The Capstone Project proposal should be submitted to the Faculty Advisor and Program Coordinator at least six weeks before enrolling in the Capstone Project course. The student may not enroll in the course until the proposal has been approved by the Faculty Advisor, IRB Analyst, and Program Coordinator. The Capstone Project proposal form and further instructions can be found in Appendix D.

Master's Paper

The Master's Paper is the key aspect of the Capstone Project and represents the culminating experience required for the MPH program. The paper should be of publishable quality and include the following:

- **Title Page** - Include name, title of project, Faculty Advisor's name, and project's time frame.
- **Abstract** - Provide an overview of the paper. The abstract should not exceed 300 words.
- **Introduction** - A brief overview of the paper including a summary of the background leading to the research question or purpose of the paper.
- **Purpose Statement** or Research Question(s) - If more than one purpose or question is applicable, limit the description to one brief paragraph each.
- **Literature Review** - Identify and review literature and previous research applicable to the paper topic. This section should include a synthesis and discussion of the reviewed literature to identify strengths, weaknesses, trends, opportunities, etc. The review should provide the basis for the paper.
- **Methods** - Describe the methodology utilized in the development of the paper. This might include the design, setting, participants, intervention, and main outcome measures of the Capstone Project, or it might provide details regarding sampling, measurement, data collection, and analysis of research.
- **Results** - Present the results of the Capstone Project. Explain the product of the effort put forth.
- **Discussion** - Discuss, in detail, the results. Place the results in the context of the existing base of knowledge on the topic, and discuss limitations.
- **Conclusion** - Provide discrete conclusions supported by evidence. Express any further study or effort implied by the conclusions, and give equal attention to positive and negative conclusions.
- **References** - Properly and consistently cite references in a reputable format of the student's choice.
- **Appendices** - Support materials may include IRB letters, survey/interview instruments, letters of support, data analysis coding sheets, or others.

The student is required to submit sections of the Master's Paper to the Faculty Advisor, Second Reader, and Program Coordinator as outlined on the Capstone Project Timeline of Responsibilities (Appendix A) unless otherwise specified and agreed upon in the Capstone Project Proposal.

Please note that during the Spring semester, submission deadlines are different for graduating students and non-graduating students. Because graduates' projects must be submitted to the Graduate School of Biomedical Sciences several weeks prior to the graduation ceremony, graduating students have less time to work on their projects in the Spring semester.

PowerPoint Presentation

A PowerPoint presentation summarizing the findings, outputs, outcomes, and recommendations determined in the Master's Paper should be submitted to the Faculty Advisor and Program Coordinator at least two weeks prior to the end of the semester.

* Abstracts and PowerPoint presentations will be posted on the MPH Program website as examples of accepted proposals for future students.

Evaluation

Student performance will be based on the Faculty Advisor's evaluation of the student's written paper and presentation with input from the Second Reader. The final grade is determined by the student's Faculty Advisor, and the student will be assigned a grade of Excellent, Good, Satisfactory or Unsatisfactory. A student whose performance is evaluated as Unsatisfactory will be required to repeat the course. A breakdown of the grading is as follows:

- Capstone Project Proposal - 10%
- Master's Paper - 80%
- PowerPoint Presentation - 10%

Relationship to Other Courses

This course will provide the application and integration of public health theory, knowledge and skills acquired in the academic coursework. The Field Placement and the Capstone Project are two distinct MPH curriculum requirements. However, the two experiences can be linked. The Field Placement could lead to a topic that can be further explored within the development of the Capstone Project proposal, but combining them is neither required nor expected.

Appendix B – Capstone Project Proposal

A. Contact Information

Student Name _____ Phone _____

MCW Email _____ Alternate Email _____

Faculty Advisor _____ Phone _____

Email _____

Second Reader _____ Phone _____

Email _____

B. Information Needed if Coordinating with a Site

Site Name _____ Website _____

Address _____ Contact Person _____

_____ Email _____

_____ Phone _____

Does this site have its own IRB? No Yes, please identify _____

Will the site require an IRB to review this project prior to initiation of any activities? No Yes

C. Project Description and Logistics

Date CITI training completed _____

Will you receive any funding via a research grant to complete this project? No Yes

Will you be working with any private health information? No Yes

Will you be interacting with possible participants (i.e. surveys, questionnaires, focus groups)? No Yes

Are you planning on publishing or submitting this project as a poster abstract or journal article? No Yes

Project Dates _____

Project Title _____

D. Narrative description of your Capstone Project should include:

1. Rationale

Concise statement of the research questions you are trying to address.

2. Project Design

a. Narrative of the project procedure in the sequence in which the project segments will be performed.

b. Description of data/information that will be gathered. Indicate if you will be working with private health information and/or interacting with possible participants.

c. Explanation of each method or approach to be utilized.

3. Materials

Explanation of any instruments or materials you intend to utilize.

4. Data Analysis or Evaluation

a. Intended analytic technique, or

b. Evaluation plan.

5. Anticipated Outcomes

a. Knowledge of product that can be expected as a result of your project.

b. Potential significance of the results, including public health relevance.

6. References

Include any references utilized.

7. Course Requirements

a. Timeline, including identification of when deliverables will be submitted.

b. Explanation of competencies that will be enhanced during the Capstone Project.

E. Responsibilities

Student responsibilities in carrying out the project:

1. Develop and submit a proposal for the Capstone Project to the faculty advisor and program coordinator for review and approval.
2. Maintain CITI (Collaborative Institutional Training Initiative) certification throughout enrollment in the Capstone Project course.
3. Obtain MCW IRB approval if deemed appropriate by the MPH Program.
4. Submit drafts of the Master's Paper to the faculty advisor and a secondary reader for review and comment.
5. Submit a final draft of the Master's Paper to the faculty advisor within the course guidelines and timeframes.
6. Develop and submit a PowerPoint presentation on the purpose, methods, results, discussion, and conclusions of the Master's Paper.

Faculty advisor responsibilities in guiding the student:

1. Provide guidance to the student, as needed, in the development of the Capstone Project.
2. Review and approve the Capstone Project proposal.
3. Act as the Principle Investigator for the student's application to the MCW IRB if deemed appropriate by the MPH Program.
4. Review drafts of the Master's Paper and provide guidance, resources, and constructive feedback.
5. Evaluate the Master's Paper and submitted presentation, and assign the final grade for the Capstone Project course.

F. Agreement & Approval

The persons whose names are listed below have participated in the development of this Capstone Project Proposal. They have agreed to the responsibilities listed under their roles in Part E of this document, and they indicated their approval of this proposal. The student indicated his/her approval and agreement by submitting his/her proposal. The Faculty Advisor provided his/her approval and agreement through an email to the Program Coordinator. If any changes need to be made to this document, each individual has agreed to make those changes known to all other persons whose names appear below.

(This section to be completed by the Program Coordinator and IRB Consultant.)

Student:

Date submitted proposal:

Faculty Advisor:

Date approved proposal:

IRB Consultant: _____ Date: _____

Does not require MCW IRB Review

Requires MCW IRB Review: Exempt Expedited Full

Comments:

Program Coordinator: _____ Date: _____

Appendix C - Faculty Advisor Evaluation of Student's Capstone Project

Please complete this evaluation and discuss with the student. Submit to the MPH Program at mph@mcw.edu or by fax to 414-955-6529 before the end of the semester.

Faculty Advisor Name _____

Student Name _____

Capstone Project Title _____

Part I. Achievement of Competencies

Please assess the extent to which the identified competencies were achieved.

C=Competent

SC=Somewhat Competent

NC=Not Competent

Competencies (as identified in the proposal)	C/SC/NC	Measures of Success

Part II. Student Performance

Please review and assess the following components of the Capstone Project.

Rating Scale		
1=Excellent	2=Good	3=Satisfactory
4=Unsatisfactory	N/A (if didn't observe or not relevant)	
	Rating	Comments
a. Completion of Capstone Project Proposal.		
b. Submission of preliminary draft of Master's Paper.		
c. Completion of final Master's Paper, which incorporated recommendations from the Faculty Advisor and Second Reader.		
d. Submission of a PowerPoint presentation.		
e. Overall grade for Capstone Project: Excellent, Good, Satisfactory, or Unsatisfactory		

Appendix D - MPH Program Graduating Student Final Competency Self Assessment

Instructions

You should submit this assessment to the MPH Program at mph@mcw.edu, or by fax to 414-955-6529 before the end of your final semester in the MPH program.

Evaluate your competency in the categories based on your experiences throughout the MPH program.

LEVEL OF COMPETENCY

Assess yourself for each of the competencies using one of the following descriptors:

Aware (basic knowledge) = ability to comprehend but limited ability to perform the skill

Basic knowledge = to recall and memorize¹

Comprehension = to translate from one form to another¹

Knowledgeable (some practical experience) = ability to apply and analyze the skill

Knowledge = the condition of knowing something with familiarity gained through experience or association²

Application = to apply or use information in a new situation¹

Analysis = to examine a concept and break it down into its parts¹

Expert (substantial practical experience) = ability to synthesize, evaluate, or teach the skill

Expert = extraordinary proficiency; connotes knowledge as well as technical skill²

Synthesis = to put information together in a unique or novel way to solve a problem¹

Evaluation = to make quantitative or qualitative judgments using standards of appraisal¹

COURSES & ACTIVITIES

Identify the courses – and, if applicable, specific activities within those courses – that enhanced your competency in this area.

EVIDENCE

List the documents you could provide that demonstrate your competency in this area.

To reference instructors' determinations of the competencies their courses enhance, see the Competency Matrix in Appendix E of the MPH Student Handbook. The handbook can be accessed online at <http://www.mcw.edu/mphprogram/CulminatingExperiences/FieldPlacement/Forms.htm>

References:

1. Arreola, RA. Preparing Learning Objectives: A Teaching Resource provided by the Office of the Vice Chancellor for Planning and Academic Support. University of Tennessee, Memphis. Retrieved on September 3, 2008, from http://www.utmem.edu/grad/MISCELLANEOUS/Learning_Objectives.pdf
2. Merriam-Webster Online Dictionary. Retrieved on September 11, 2008, from <http://www.merriam-webster.com/>

Name: CORE COMPETENCIES	LEVEL OF COMPETENCY aware knowledgeable expert	COURSES & ACTIVITIES that helped achieve competency	EVIDENCE documents that demonstrate competency
BIOSTATISTICS			
Develop and apply statistical reasoning and methods in addressing and solving problems in public health.			
Determine appropriate use of quantitative and qualitative data and statistical methods for problem identification and resolution.			
EPIDEMIOLOGY			
Assess the health status of populations and their related determinants of health and illness.			
Utilize data to address scientific, political, ethical, and social public health issues.			

Name: CORE COMPETENCIES	LEVEL OF COMPETENCY aware knowledgeable expert	COURSES & ACTIVITIES that helped achieve competency	EVIDENCE documents that demonstrate competency
ENVIRONMENTAL HEALTH			
Demonstrate an understanding of the environmental factors including biological, physical, and chemical factors that affect the health of a community.			
Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents.			
PUBLIC HEALTH ADMINISTRATION			
Describe the structure, process and outcomes of health services management and policy development including the costs, financing, organization and accessibility of care.			

Name: CORE COMPETENCIES	LEVEL OF COMPETENCY aware knowledgeable expert	COURSES & ACTIVITIES that helped achieve competency	EVIDENCE documents that demonstrate competency
SOCIAL AND BEHAVIORAL SCIENCES			
Apply basic theories, concepts and models from social, scientific and behavioral disciplines that are used in public health research and practice.			
PUBLIC HEALTH PRACTICE AND SCIENCE			
Apply the basic public health sciences (including, but not limited to biostatistics, epidemiology, environmental health, public health administration, and social and behavioral sciences) to public health policies and programs.			
Identify best practices for assessing, preventing, and controlling environmental and occupational hazards that pose risks to human health and safety.			

Name: CORE COMPETENCIES	LEVEL OF COMPETENCY aware knowledgeable expert	COURSES & ACTIVITIES that helped achieve competency	EVIDENCE documents that demonstrate competency
COMMUNICATION			
Communicate effectively to diverse professional and lay audiences regarding public health issues.			
CULTURAL COMPETENCY			
Identify the role of cultural, social, and behavioral factors in determining the organization and delivery of public health services and programs.			
Develop public health interventions and strategies responsive to the diverse cultural values and traditions of the communities being served.			

Name: TRACK-SPECIFIC COMPETENCIES	LEVEL OF COMPETENCY aware knowledgeable expert	COURSES & ACTIVITIES that helped achieve competency	EVIDENCE documents that demonstrate competency
MONITORING AND ASSESSMENT			
Assess community linkages and relationships among multiple factors (or determinants) affecting health.			
PROGRAM PLANNING, IMPLEMENTATION, AND EVALUATION			
Describe how social, behavioral, environmental, and biological factors contribute to specific individual and community outcomes.			
Apply the principles of program planning, development, budgeting, management and evaluation in organizational and community initiatives.			
Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health.			

Name: TRACK-SPECIFIC COMPETENCIES	LEVEL OF COMPETENCY aware knowledgeable expert	COURSES & ACTIVITIES that helped achieve competency	EVIDENCE documents that demonstrate competency
ETHICS			
Describe the legal, moral, social, political and ethical issues involved in public health policy and practice.			
Apply legal and ethical principles to the practice of public health in a variety of settings.			
MANAGEMENT AND COLLABORATIVE LEADERSHIP			
Apply principles of collaborative leadership and management that include the mobilization of community partnerships to administer public health programs, advance public health initiatives and achieve community health goals.			
Demonstrate effective leadership, coalition/team building and advocacy skills in managing, applying laws and regulations, and advancing public health issues.			