Capstone Kit

2023-2024

SCHOOL OF MEDICINE
CASE WESTERN RESERVE
UNIVERSITY

Master of Public Health Program

Capstone Project Overview

Objectives

The objectives of the **multi-semester** Capstone Project are to:

- Develop a broad understanding of content related to the chosen MPH concentration
- Develop the ability to communicate effectively with target groups and professionals
- Develop skills necessary for scholarship and scientific investigation
- Order priorities for major projects according to definable criteria
- Use information technology for applications relevant to public health
- Identify ethical, social and cultural issues relating to policies, risks, research and interventions in a public health context
- Identify decision-making processes within the field site organization
- Identify and coordinate the use of resources at the site

Requirements

The successful completion of the Capstone Project requires the completion of the following:

- Complete Capstone project proposal and accompanying forms (these **must** be completed, submitted, and approved by Capstone Committee and MPH Office prior to student receiving permission to register for Capstone credits

    A completed Capstone project proposal includes:

    o Cover sheet signed by <u>all</u> Capstone Committee members
    o Proposal essay, detailing background literature, methodology, and public health significance of Capstone project
    o Capstone Foundational Competencies Form
    o Concentration-Specific Competencies Form
- Capstone progress report(s)
- Foundational Competency Assessment Form (to be completed all members of the Capstone Committee)
- Concentration-Specific Competency Assessment Form (to be completed by all Capstone Committee members)
- Capstone essay of professional quality
- Capstone essay evaluation forms (to be completed by <u>all</u> Capstone Committee members)
- Oral presentation detailing the project and its findings given at the *Public Health Innovations Conference*
- Presentation evaluation forms (to be completed by <u>all</u> Capstone Committee members)

Capstone Proposal Guidelines & Checklist

It is expected that the Capstone Proposal will include:

☐ Cover Sheet including name, title of the project, name of host organization, and Capstone Committee members (see next page for cover sheet)

☐ Competency forms (see foundational and concentration-specific competency forms below)

☐ Brief Project Description

☐ Background

  1. Literature Review

  2. Rationale

      a. Concise statement of the research question(s) you are trying to address

      b. How you will attempt to address the research questions

☐ Project Design, which should include:

  1. A narrative of the project procedure in the sequence in which the project segments will be performed

  2. A depiction the population participating in the project

  3. A description of the project site

  4. An inventory of relevant institutional resources available to help complete your project

  5. A timeline

☐ Materials and Methods

  1. An explanation of the instruments, materials, and methods you intend to utilize. We encourage research oriented capstone projects, but before data collection can occur the methodology should be approved by your Committee. Research projects will likely require IRB clearance. Please consult with your Committee and/or the MPH office for guidance on the IRB Process. Please attach a copy of any IRB application and/or IRB determination letter with your proposal.

  2. Draft informed consent form, if applicable

  3. Draft questionnaire/survey, if applicable

☐ Plan for data analysis, evaluation, and/or interpretation

1. Intended analytic technique; or

2. Evaluation plan

☐ Anticipated outcomes

1. What knowledge or product can be expected as a result of your project?

2. What is the potential significance of the results, including public health relevance?

☐ **If your capstone also encompasses your practicum:**

1. Identify the name and title of your preceptor
2. List at least three learning objectives of the practicum. (What will you learn? What will you do? Refer to Bloom's Taxonomy when writing learning objectives.)
3. List any special considerations of your practicum. (Will you need a background check? Are there certain scheduling considerations you've worked out with your preceptor? Are there privacy or confidentiality considerations? Will you need to undergo specific training or credentialing?)
4. List the competencies your project will address. You must meet at least 5 competencies, of which 3 much be Foundational. The other 2 may consist of concentration-specific or custom competencies relevant to your educational and/or career goals.
5. List at least two concrete Portfolio Products (deliverables) that will result from your practicum. Please reference the Culminating Experience Guide if you need example portfolio products. Your poster prepared for the *Innovations* conference does **not** count, nor does your capstone presentation or essay *unless you are submitting a manuscript for publication that you also plan to use as your capstone essay.*

☐ List your Capstone Advisory Committee members. Briefly list or describe their professional contributions to your project

☐ References

Capstone Project Proposal Cover Sheet & Approval Form

Student Information:
Student Name: _____ Student Email Address: _____

Student Concentration(s): ☐ Population Health Research   ☐ Health Policy & Management
                                    ☐ Global Health   ☐ Health Promotion & Disease Prevention
                                    ☐ Health Informatics

Registration Plans: ☐ One Semester: 6 Capstone credits
                             ☐ Two Semesters: 3 Capstone credits in first semester; 3 Capstone credits in second semester
                             ☐ Other (specify): _____

Proposed Timeline: Starting Semester/Year: _____ Ending Semester/Year: _____

Capstone Information:

Capstone Title: _____

Does this practicum experience involve travel outside the United States?   ☐ Yes   ☐ No
If yes, please complete the following:
Destination: _____ Date of departure: _____ Date of return: _____
Has the student registered their travel with the Office of Education Abroad?   ☐ Yes   ☐ No
(See MPH travel abroad policy in the Culminating Experience Guide)

Capstone Site Information:
     Organization: _____

     Preceptor Name: _____ Preceptor Title: _____

     Preceptor Phone Number: _____ Preceptor Email: _____

     Preceptor Signature: _____ Date: _____
     Is Preceptor serving as a Capstone Advisory Committee member? ☐ Yes   Is the Preceptor the Committee Chair? ☐ Yes

Capstone Advisory Committee (if the above Preceptor is serving as a Committee member, a duplicate entry below is not needed)
     Chair Name: _____ Chair Title: _____

     Chair Department/Organization: _____

     Chair Phone Number: _____ Chair Email: _____

     Chair Signature: _____ Date: _____

     Advisor Name: _____ Advisor Title: _____

     Advisor Department/Organization: _____

     Advisor Phone Number: _____ Advisor Email: _____

     Advisor Signature: _____ Date: _____

     Advisor Name: _____ Advisor Title: _____

     Advisor Department/Organization: _____

     Advisor Phone Number: _____ Advisor Email: _____

     Advisor Signature: _____ Date: _____

This form continues on the next page with Institutional Review Board (IRB) Information

Institutional Review Board (IRB) Information

All research activities including those related to capstones, theses, dissertations, etc involving human subjects, even if involving only secondary data analysis, must have IRB approval or a documented IRB determination of exemption. Typically, the research advisor will be the PI of the IRB, but in any case the student must be involved in this process. If the work is part of a larger project that has already received clearance, the student should be added as key personnel to the IRB protocol and assurances should be made that any new research activities not previously approved are added to the IRB protocol (such as by IRB addendum) and receive IRB review and IRB approval. The IRB approval or exemption number must be provided to the MPH program before starting research activities and must be included in the Capstone document. The CWRU IRB Office can be contacted at https://case.edu/research/faculty-staff/compliance/institutional-review-board-cwru-irb.

All data must be securely maintained and privacy of participants protected. Students are required to adhere to the University's, School of Medicine's, and relevant IRB's data protection policies. Human subject data or study materials provided to, obtained from, or created by a student, may not be transmitted or shared with any other individuals (including another student) without explicit written permission from the study's principal investigator and/or the responsible investigator listed on the approved IRB protocol. The departmental Approval for all IRB proposals is through the Vice-Chair for Research.

Does this Capstone involve human subjects research?   ☐ Yes   ☐ No

If no, have you obtained IRB determination of exemption?   ☐ Yes   ☐ No

If yes, have you received CREC certification?   ☐ Yes (Completion Date: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _)   ☐ No

Have you submitted a protocol to IRB?

☐ Will submit proposal before beginning research

☐ Yes; IRB Protocol # _

☐ Not required (provide justification below)

If IRB submission is not required, please provide a justification below (e.g., this capstone is a policy analysis and is therefore not considered human subjects research).

I attest that I have attended a Community Health Research and Practice (CHRP) seminar session on IRB submission or have viewed the recorded presentation: ☐ Yes

Please include all IRB documentation with your Capstone Proposal document when submitting it to the MPH Director of Community Based Education.

Capstone Foundational Competencies Form

Student Name: _____ _____ Date: _____

Capstone Title: _____

I am completing this form as part of my:

☐ Capstone Proposal
☐ Capstone Progress Report
☐ Final Capstone Requirements

Directions: All Capstones Projects must demonstrate mastery of both foundational and concentration-specific competencies. You may choose to include additional custom competencies if you choose. There is no prescribed set or minimum number of competencies to be met by the MPH Capstone. It is expected that Capstone projects will be substantial enough to demonstrate mastery of multiple foundational and concentration-specific competencies. Please complete both the Capstone foundational competencies form **and** the appropriate concentration-specific competencies form. You can update which competencies you are meeting with each submission of this form, if applicable.

Capstone Foundational Competencies

My Capstone Project will address the following foundational competencies:

Evidence-based Approaches to Public Health

☐ Apply epidemiological methods to the breadth of settings and situations in public health practice

☐ Select quantitative and qualitative data collection methods appropriate for a given public health context

☐ Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate

☐ Interpret results of data analysis for public health research, policy or practice

Public Health & Health Care Systems

☐ Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings

☐ Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels

Planning & Management to Promote Health

- [ ] Assess population needs, assets and capacities that affect communities' health
- [ ] Apply awareness of cultural values and practices to the design or implementation of public health policies or programs
- [ ] Design a population-based policy, program, project or intervention
- [ ] Explain basic principles and tools of budget and resource management
- [ ] Select methods to evaluate public health programs

Policy in Public Health

- [ ] Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence
- [ ] Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
- [ ] Advocate for political, social or economic policies and programs that will improve health in diverse populations
- [ ] Evaluate policies for their impact on public health and health equity

Leadership

- [ ] Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making
- [ ] Apply negotiation and mediation skills to address organizational or community challenges

Communication

- [ ] Select communication strategies for different audiences and sectors
- [ ] Communicate audience-appropriate public health content, both in writing and through oral presentation
- [ ] Describe the importance of cultural competence in communicating public health content

Interprofessional Practice

- [ ] Perform effectively on interprofessional teams

Systems Thinking

- [ ] Apply systems thinking tools to a public health issue

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Concentration-Specific Competencies Form: GLOBAL HEALTH

*To be completed by the **student***

Student Name: _____Date: _____

Please complete this form if you are enrolled in the Global Health concentration. **Global Health Capstone Projects should address at least some of these competencies.** Attach and submit with the Capstone Foundational Competency Form.

I am completing this form as part of my:

☐ Capstone Proposal
☐ Capstone Progress Report
☐ Final Capstone Requirements

My Capstone Project will address the following competencies:

☐ Describe the relationships among agencies focused on colonial health, tropical medicine, international health, and global health in a historical context

☐ Prioritize diseases of global health importance and their epidemiological context

☐ Apply methods for strengthening and focusing existing capacities and resources for health program sustainability and enhancement

☐ Contrast application of technology to impact priority diseases with addressing the underlying social and economic determinants of global health linked to health care delivery systems

☐ Apply the fundamental international principles and standards for the protection of human research subjects in diverse cultural settings

(Optional) Use the space below (or attach a separate page) for any identified custom competencies.

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Concentration-Specific Competencies Form: HEALTH INFORMATICS

*To be completed by the **student***

Student Name: _____Date: _____

Please complete this form if you are enrolled in the Health Informatics concentration. **Health Informatics Capstone Projects should address at least some of these competencies.** Attach and submit with the Capstone Foundational Competency Form.

I am completing this form as part of my:

☐ Capstone Proposal
☐ Capstone Progress Report
☐ Final Capstone Requirements

My Capstone Project will address the following competencies:

☐ Understand the fundamentals of using biomedical ontologies for integration of biomedical and health data

☐ Differentiate between standard health data exchange formats and vocabularies

☐ Explain how clinical data originating from different systems are collected and coded and how they are normalized, aggregated, and analyzed

☐ Describe how biomedical terminological systems are used in natural language processing workflow for unstructured biomedical text

☐ Describe the ethical, regulatory, managerial, financial, and practical aspects of data security

(Optional) Use the space below (or attach a separate page) for any identified custom competencies.

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Concentration-Specific Competencies Form: HEALTH POLICY & MANAGEMENT

*To be completed by the **student***

Student Name: _____Date: _____

Please complete this form if you are enrolled in the Health Policy & Management. **Health Policy & Management Capstone Projects should address at least some of these competencies.** Attach and submit with the Capstone Foundational Competency Form.

I am completing this form as part of my:

☐ Capstone Proposal
☐ Capstone Progress Report
☐ Final Capstone Requirements

My Capstone Project will address the following competencies:

☐ Apply the principles of program development, planning, budgeting, and resource management in organizational or community initiatives

☐ Describe how policy impacts healthcare delivery and outcomes

☐ Apply a continuous quality and performance improvement framework to address organizational coordination and performance

☐ Identify methods for decision making using evidence-based, systems thinking, and data-driven approaches to health policy and management

☐ Identify how access, quality, and cost are influenced by organizational and financial structures

(Optional) Use the space below (or attach a separate page) for any identified custom competencies.

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Concentration-Specific Competencies Form: HEALTH PROMOTION & DISEASE PREVENTION

To be completed by the **student**

Student Name: _____Date: _____

Please complete this form if you are enrolled in the Health Promotion & Disease Prevention concentration. **Health Promotion & Disease Prevention Capstone Projects should address at least some of these competencies.** Attach and submit with the Capstone Foundational Competency Form.

I am completing this form as part of my:

☐ Capstone Proposal
☐ Capstone Progress Report
☐ Final Capstone Requirements

My Capstone Project will address the following competencies:

☐ Assess needs for health interventions for the general public as well as at-risk populations

☐ Systematically evaluate health promotion strategies across typologies of evidence

☐ Apply system complexity concepts in the context of nested individuals, social networks, organizations, and communities (i.e., systems nested within systems) in the analysis of public health problems and solutions

☐ Develop health education/health promotion strategies that create an understanding of and respect for the importance of culture in practice and policy.

☐ Apply social and behavioral theory and planning models and evidence-based health promotion strategies for a variety of populations in the development of a health education/health promotion plan

(Optional) Use the space below (or attach a separate page) for any identified custom competencies.

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Concentration-Specific Competencies Form: POPULATION HEALTH RESEARCH

*To be completed by the **student***

Student Name: _____ Date: _____

Please complete this form if you are enrolled in the Population Health Research concentration. **Population Health Research Capstone Projects should address at least some of these competencies.** Attach and submit with the Capstone Foundational Competency Form.

I am completing this form as part of my:

☐ Capstone Proposal
☐ Capstone Progress Report
☐ Final Capstone Requirements

My Capstone Project will address the following competencies:

☐ Construct a conceptual model and choose an appropriate existing data set, such as electronic health records, Medicare/Medicaid, Medical Expenditure Panel Survey, Health Care Utilization Project, and Health and Retirement Study, to address a population health research question

☐ Design and perform a study consisting of a retrospective analysis of an existing data set to address a population health research question of interest

☐ Design efficient computer programs for data management and manipulation, statistical analysis, as well as presentation using R (or another statistical programming language, such as SAS)

☐ Apply advanced statistical methods for analyzing count data, categorical data and time to event data: specifically, Poisson regression models, multinomial and ordinal logistic regression models, and Cox proportional hazard models

☐ Perform predictive modeling employing different strategies for model selection (best subsets and shrinkage approaches), imputation of missing values, and splitting data into training and test data sets

(Optional) Use the space below (or attach a separate page) for any identified custom competencies.

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Foundational Competency Assessment Form

*To be completed by **Capstone Advisory Committee Members** with Final Capstone Essay*

Student Name: _____ Date: _____

Evaluator's Name: _____

Evaluator's Role: ☐ Capstone Committee Chair   ☐ Capstone Committee Member   ☐ Other

DIRECTIONS: Using your professional judgement, please evaluate the student on the following competencies. (*Note: not all competencies will necessarily be met by the Capstone, and there is no prescribed list or minimum. We do expect all Capstone Projects to be substantial enough that they meet multiple competencies, both foundational and concentration-specific.*) This form must be received before any grade can be issued. Feel free to contact the MPH Office if you need additional guidance. **This form consists of three (3) pages. Please be sure to also complete the appropriate Concentration-Specific Competency Assessment Form provided to you by the student.**

Evidence-Based Approaches to Public Health	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Apply epidemiological methods to the breadth of settings and situations in public health practice	☐	☐	☐	☐
Select quantitative and qualitative data collection methods appropriate for a given public health context	☐	☐	☐	☐
Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	☐	☐	☐	☐
Interpret results of data analysis for public health research, policy or practice	☐	☐	☐	☐
Public Health & Health Care Systems				
Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	☐	☐	☐	☐
Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	☐	☐	☐	☐

Planning & Management to Promote Health	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Assess population needs, assets and capacities that affect communities' health	☐	☐	☐	☐
Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	☐	☐	☐	☐
Design a population-based policy, program, project or intervention	☐	☐	☐	☐
Explain basic principles and tools of budget and resource management	☐	☐	☐	☐
Select methods to evaluate public health programs	☐	☐	☐	☐
Policy in Public Health				
Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	☐	☐	☐	☐
Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	☐	☐	☐	☐
Advocate for political, social or economic policies and programs that will improve health in diverse populations	☐	☐	☐	☐
Evaluate policies for their impact on public health and health equity	☐	☐	☐	☐
Leadership				
Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	☐	☐	☐	☐
Apply negotiation and mediation skills to address organizational or community challenges	☐	☐	☐	☐

Communication	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Select communication strategies for different audiences and sectors	☐	☐	☐	☐
Communicate audience-appropriate public health content, both in writing and through oral presentation	☐	☐	☐	☐
Describe the importance of cultural competence in communicating public health content	☐	☐	☐	☐
Interprofessional Practice				
Perform effectively on interprofessional teams	☐	☐	☐	☐
Systems Thinking				
Apply systems thinking tools to a public health issue	☐	☐	☐	☐

Please use the space below for comments, if applicable:

Evaluator's Signature: _____ Date: _____

Concentration-Specific Competency Assessment Form: GLOBAL HEALTH

To be completed by **Capstone Advisory Committee Members** *with Final Capstone Essay*

Student Name: _____ Date: _____

Evaluator's Name: _____

Evaluator's Role: ☐ Capstone Committee Chair ☐ Capstone Committee Member ☐ Other

DIRECTIONS: Using your professional judgement, please evaluate the student on the following competencies. (*Note: not all competencies will necessarily be met by the Capstone, and there is no prescribed list or minimum. We do expect all Capstone Projects to be substantial enough that they meet multiple competencies, both foundational and concentration-specific*.) This form must be received before any grade can be issued. Feel free to contact the MPH Office if you need additional guidance. **Please be sure to also complete the Foundational Competency Assessment Form, provided to you by the student.**

Competency	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Describe the relationships among agencies focused on colonial health, tropical medicine, international health, and global health in a historical context	☐	☐	☐	☐
Prioritize diseases of global health importance and their epidemiological context	☐	☐	☐	☐
Apply methods for strengthening and focusing existing capacities and resources for health program sustainability and enhancement	☐	☐	☐	☐
Contrast application of technology to impact priority diseases with addressing the underlying social and economic determinants of global health linked to health care delivery systems	☐	☐	☐	☐
Apply the fundamental international principles and standards for the protection of human research subjects in diverse cultural settings	☐	☐	☐	☐

(Optional) Use the reverse side (or attach a separate page) for any identified custom competencies.

Evaluator's Signature: _____ Date: _____

To Be Completed by MPH Program:
Date approved: _____ Received by: _____

Concentration-Specific Competency Assessment Form: HEALTH INFORMATICS

To be completed by **Capstone Advisory Committee Members** *with Final Capstone Essay*

Student Name: _____ Date: _____

Evaluator's Name: _____

Evaluator's Role: ☐ Capstone Committee Chair   ☐ Capstone Committee Member   ☐ Other

DIRECTIONS: Using your professional judgement, please evaluate the student on the following competencies. (*Note: not all competencies will necessarily be met by the Capstone, and there is no prescribed list or minimum. We do expect all Capstone Projects to be substantial enough that they meet multiple competencies, both foundational and concentration-specific.*) This form must be received before any grade can be issued. Feel free to contact the MPH Office if you need additional guidance. **Please be sure to also complete the Foundational Competency Assessment Form, provided to you by the student.**

Competency	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Understand the fundamentals of using biomedical ontologies for integration of biomedical and health data	☐	☐	☐	☐
Differentiate between standard health data exchange formats and vocabularies	☐	☐	☐	☐
Explain how clinical data originating from different systems are collected and coded and how they are normalized, aggregated, and analyzed	☐	☐	☐	☐
Describe how biomedical terminological systems are used in natural language processing workflow for unstructured biomedical text	☐	☐	☐	☐
Describe the ethical, regulatory, managerial, financial, and practical aspects of data security	☐	☐	☐	☐

(Optional) Use the reverse side (or attach a separate page) for any identified custom competencies.

Evaluator's Signature: _____ Date: _____

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Concentration-Specific Competency Assessment Form:
HEALTH POLICY & MANAGEMENT

To be completed by **Capstone Advisory Committee Members** *with Final Capstone Essay*

Student Name: _____ Date: _____

Evaluator's Name: _____

Evaluator's Role: ☐ Capstone Committee Chair ☐ Capstone Committee Member ☐ Other

DIRECTIONS: Using your professional judgement, please evaluate the student on the following competencies. (*Note: not all competencies will necessarily be met by the Capstone, and there is no prescribed list or minimum. We do expect all Capstone Projects to be substantial enough that they meet multiple competencies, both foundational and concentration-specific.*) This form must be received before any grade can be issued. Feel free to contact the MPH Office if you need additional guidance. **Please be sure to also complete the Foundational Competency Assessment Form, provided to you by the student.**

Competency	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Apply the principles of program development, planning, budgeting, and resource management in organizational or community initiatives	☐	☐	☐	☐
Describe how policy impacts healthcare delivery and outcomes	☐	☐	☐	☐
Apply a continuous quality and performance improvement framework to address organizational coordination and performance	☐	☐	☐	☐
Identify methods for decision making using evidence-based, systems thinking, and data-driven approaches to health policy and management	☐	☐	☐	☐
Identify how access, quality, and cost are influenced by organizational and financial structures	☐	☐	☐	☐

(Optional) Use the reverse side (or attach a separate page) for any identified custom competencies.

Evaluator's Signature: _____ Date: _____

To Be Completed by MPH Program:

Date approved: _____ Received by: _____

Concentration-Specific Competency Assessment Form:

HEALTH PROMOTION & DISEASE PREVENTION

To be completed by **Capstone Advisory Committee Members** *with Final Capstone Essay*

Student Name: _____ Date: _____

Evaluator's Name: _____

Evaluator's Role: ☐ Capstone Committee Chair ☐ Capstone Committee Member ☐ Other

DIRECTIONS: Using your professional judgement, please evaluate the student on the following competencies. (*Note: not all competencies will necessarily be met by the Capstone, and there is no prescribed list or minimum. We do expect all Capstone Projects to be substantial enough that they meet multiple competencies, both foundational and concentration-specific.*) This form must be received before any grade can be issued. Feel free to contact the MPH Office if you need additional guidance. **Please be sure to also complete the Foundational Competency Assessment Form, provided to you by the student.**

Competency	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Assess needs for health interventions for the general public as well as at-risk populations	☐	☐	☐	☐
Systematically evaluate health promotion strategies across typologies of evidence	☐	☐	☐	☐
Apply system complexity concepts in the context of nested individuals, social networks, organizations, and communities (i.e., systems nested within systems) in the analysis of public health problems and solutions	☐	☐	☐	☐
Develop health education/health promotion strategies that create an understanding of and respect for the importance of culture in practice and policy.	☐	☐	☐	☐
Apply social and behavioral theory and planning models and evidence-based health promotion strategies for a variety of populations in the development of a health education/health promotion plan	☐	☐	☐	☐

(Optional) Use the reverse side (or attach a separate page) for any identified custom competencies.

Evaluator's Signature: _____ Date: _____

To Be Completed by MPH Program:

Date approved: _____ **Received by:** _____

Concentration-Specific Competency Assessment Form:
POPULATION HEALTH RESEARCH

To be completed by **Capstone Advisory Committee Members** *with Final Capstone Essay*

Student Name: _____ Date: _____

Evaluator's Name: _____

Evaluator's Role: ☐ Capstone Committee Chair ☐ Capstone Committee Member ☐ Other

DIRECTIONS: Using your professional judgement, please evaluate the student on the following competencies. (*Note: not all competencies will necessarily be met by the Capstone, and there is no prescribed list or minimum. We do expect all Capstone Projects to be substantial enough that they meet multiple competencies, both foundational and concentration-specific.*) This form must be received before any grade can be issued. Feel free to contact the MPH Office if you need additional guidance. **Please be sure to also complete the Foundational Competency Assessment Form, provided to you by the student.**

Competency	Approaching Sufficiency	Sufficient	Advanced	Not Applicable to this Capstone
Construct a conceptual model and choose an appropriate existing data set, such as electronic health records, Medicare/Medicaid, Medical Expenditure Panel Survey, Health Care Utilization Project, and Health and Retirement Study, to address a population health research question	☐	☐	☐	☐
Design and perform a study consisting of a retrospective analysis of an existing data set to address a population health research question of interest	☐	☐	☐	☐
Design efficient computer programs for data management and manipulation, statistical analysis, and presentation using R (or another statistical programming language, such as SAS)	☐	☐	☐	☐
Apply advanced statistical methods for analyzing count data, categorical data and time to event data: specifically, Poisson regression models, multinomial and ordinal logistic regression models, and Cox proportional hazard models	☐	☐	☐	☐
Perform predictive modeling employing different strategies for model selection (best subsets and shrinkage approaches), imputation of missing values, and splitting data into training and test data sets	☐	☐	☐	☐

(Optional) Use the reverse side (or attach a separate page) for any identified custom competencies.

Evaluator's Signature: _____ Date: _____

To Be Completed by MPH Program:
Date approved: _____ Received by: _____

Capstone Committee Essay Evaluation Form

To be completed by **Capstone Advisory Committee Members** *with competency assessment forms*

Student Name: _____ Date: _____

Evaluator's Name: _____
      Evaluator's Role: ☐ Capstone Committee Chair ☐ Capstone Committee Member ☐ Other

Evaluation process:
- Student is responsible for distributing this evaluation sheet along with essay and competency assessment forms to Capstone Committee members prior to presentation date
- Committee members are responsible for collaborating with each other about the quality of the student's product, recommending revisions (if needed) to the student in a timely manner, and completing all evaluation forms in a timely manner
- Committee Chair is responsible for communicating a final grade to MPH Director of Community Based Education
- MPH Office is responsible for submitting final grade to University Registrar

Please evaluate the Capstone Essay on the following:	Inadequate	Adequate	Well Done	Outstanding
Summary Statement: A brief overview of the purpose of the project and what the project addresses	☐	☐	☐	☐
Objectives: A list or discussion of the objectives and /or research questions addressed by the project	☐	☐	☐	☐
Background: A detailed literature review describing previous work on the topic. Effort should be made to place the project in theoretical model. Related controversies should be addressed.	☐	☐	☐	☐
Methods: Design, setting, participants, intervention (if appropriate), and main outcome measures	☐	☐	☐	☐
Results: The product of the effort put forth in the Capstone project should be articulated in detail in this section	☐	☐	☐	☐
Discussion: Detailed discussion of the results. Student should place the results in the context of the existing base of knowledge on the topic. Limitations and strengths of the project should be discussed.	☐	☐	☐	☐
Conclusion: Conclusions *supported by evidence* should be communicated. Further study or effort implied by the conclusions should be expressed. Equal attention should be given to positive and negative conclusions.	☐	☐	☐	☐
ESSAY IS OF PROFESSIONAL QUALITY:	☐ Yes		☐ No	
STUDENT HAS SUCCESSFULLY COMPLETED REQUIREMENTS:	☐ Yes		☐ No	

If "No" or "Inadequate" is selected above, please elaborate on the reverse side (or on additional pages, as needed)

Evaluator's Signature: _____ **Date:**_____

To Be Completed by MPH Program:

Date received: _____ Received by: _____

Capstone Presentation Evaluation Form

Student Name: _____ Date: _____

Evaluator's Name: _____

Evaluator's Role: ☐ Capstone Committee Chair ☐ Capstone Committee Member ☐ Faculty ☐ Student

☐ Staff ☐ Other

Evaluation process:
- Student is responsible for distributing a copy of the Capstone Essay to Capstone Committee Members **two weeks prior to presentation** so that they may adequately assess the presentation.
- Student is responsible for distributing evaluation sheets to Committee Members prior to presentation
- Committee members are responsible for collaborating with each other about the quality of the student's presentation and completing presentation evaluation forms in a timely manner
- Committee Chair is responsible for communicating student's final grade to MPH Office.
- MPH Office is responsible for submitting final grade to University Registrar

Please evaluate the Capstone Presentation on the following:	Inadequate	Adequate	Well Done	Outstanding
Introduction: Were goals, objectives, and methods of project stated clearly? Could audience grasp the scope of the project?	☐	☐	☐	☐
Knowledge of Material: Is student fluent with material/topic?	☐	☐	☐	☐
Visual Support: Did visual aids appropriately support the oral presentation (not duplicate it)?	☐	☐	☐	☐
Results: Was the product of the effort put forth in the Capstone Project articulated, including a detailed discussion of the results in the context of the existing base of knowledge on the topic? Were strengths and limitations of the project discussed?	☐	☐	☐	☐
Delivery: Was presenter audible and comprehensible?	☐	☐	☐	☐
Responsiveness: Did presenter respond effectively to questions posed (if any), indicating a firm grasp of the material?	☐	☐	☐	☐
STUDENT HAS SUCCESSFULLY COMPLETED REQUIREMENTS:	☐ Yes		☐ No	

If "No" or "Inadequate" is selected above, please elaborate on the reverse side (or on additional pages, as needed)

Evaluator's Signature: _____ **Date:**_____

| To Be Completed by MPH Program: |
| Date received: _____ Received by: _____ |

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Culminating Experience Funding Request Form

Student name: _____ 7-Digit ID: _____

Project title: _____

Amount requested: _____

Please briefly describe the expenses you plan to incur:

*Please note: expenses are paid on a reimbursement basis. (Exception: CWRU will **not** reimburse you for gift card purchases. Please see the Research Incentives Policy below for details on procurement of gift cards for research purposes.) You must save itemized receipts for all expenses and submit them to the MPH office for reimbursement. CWRU will not reimburse you without a receipt.*

Financial Support for Capstone Projects

The MPH program recognizes that the Capstone Experience may entail expenses for the student (e.g., survey instruments, materials, etc.). The MPH program provides financial support, on a competitive basis, for student capstone projects up to $250 per student. Recognizing that international projects entail greater expense, Global Health capstones that include international travel are allotted up to $500. Full details about financial assistance for the Capstone Experience can be obtained from the MPH Office.

Research Incentives Policy

Any research incentives must be approved by the Case Western Reserve University's Institutional Review Board (IRB). The MPH program does not keep gift cards on hand. If students are using gift cards as incentives for educational or research projects, i.e. capstone projects, students must submit a request to the MPH program for the gift cards. This request is submitted through a form to be approved by the MPH Director of Community- Based Education and then submitted to the Administrative Director for budgetary purposes. The MPH program strongly encourages the use of electronic gift cards such as Amazon.

Process for Gift Card Procurement

- Students submit a Gift Card request form indicating the purpose for the cards.
- The Director of Community-Based Education will request the gift cards by notifying the Department Assistant.
- The amount requested will be documented by the Administrative Director.
- Gift cards will be purchased by the Department Assistant.
- Gift cards are secured in the MPH office by the Director of Community- Based Education.
- Once the Gift cards are available, the Director of Community- Based Education will notify the student.

All incentives and monetary devices must be accounted for by the student to prevent theft or misuse.

Student signature: _____ Date: _____

I have read and understand the policies and procedures described above.