Capstone Kit

2018-2019

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 all 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 all 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 all 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?

References
Capstone Project Proposal Cover Sheet & Approval Form

Student Information:
Student Name: ___________________________________________ Student Identification #: _______________
Student Email Address: _____________________________________ Student Phone Number:  ______________

Student Concentration(s):
☐ Population Health Research ☐ Health Policy & Administration
☐ 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 Capstone Have a Research Component? ☐ Yes ☐ No
If yes, have you received CREC certification? ☐ Yes (Completion Date: ____________________) ☐ No
Have you submitted proposal to IRB? ☐ Not required ☐ Will submit proposal before beginning research
(Please attach all IRB documentation) ☐ Yes; IRB Protocol #_____________________________

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 on page 42 of the Culminating Experience Guide)

Capstone Site Information:
Organization: _____________________________________________________________________________

Preceptor Name: _________________________________ Preceptor Title: ____________________________
Preceptor Phone Number: _______________________ Preceptor Email: _____________________________
Preceptor Signature ____________________________________________ Date: ____________________

Capstone Advisory Committee Information & Signatures:
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: ____________________

Advisor Name: _____________________________________ Advisor Title: _________________________
Advisor Department/Organization: __________________________
Advisor Phone Number: ____________________________ Advisor Email: _________________________
Advisor Signature: ____________________________________________ Date: ____________________

To Be Completed by MPH Program:
Date approved: _____________________________ Received by: ____________________________
Capstone Foundational Competencies Form

Student Name: ___________________________ Date: ___________________

Capstone Title: __________________________________________________________________________

I am completing this form as part of my:

☐ Capstone Proposal (To be submitted with Capstone Proposal to all members of Capstone Advisory Committee and MPH Director of Community Based Education)

☐ Capstone Progress Report (To be submitted with Progress Report to all members of Capstone Advisory Committee and MPH Director of Community Based Education)

☐ Final Capstone Requirements (To be submitted with Capstone Essay to MPH Director of Community Based Education)

Directions: All Capstone 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 and submit according to the guidelines above. You can update which competencies you are meeting with each submission, 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
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 Population Health Research 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 (To be submitted with proposal to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
☐ Capstone Progress Report (To be submitted with Progress Report to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
☐ Final Capstone Requirements (To be submitted with Capstone Essay to MPH Director of Community Based Education)

My Capstone Project will address the following competencies:

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

☐ Prioritize of 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 policy or 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 Population Health Research 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 (To be submitted with proposal to all members of Capstone Advisory Committee and MPH Director of Community Based Education)

☐ Capstone Progress Report (To be submitted with Progress Report to all members of Capstone Advisory Committee and MPH Director of Community Based Education)

☐ Final Capstone Requirements (To be submitted with Capstone Essay to MPH Director of Community Based Education)

My Capstone Project will address the following competencies:

☐ 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

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

☐ Apply biomedical ontologies for integration of biomedical and health data

☐ Design biomedical terminological systems using natural language processing workflow for unstructured biomedical text

(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 Population Health Research 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** (To be submitted with proposal to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
- [ ] **Capstone Progress Report** (To be submitted with Progress Report to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
- [ ] **Final Capstone Requirements** (To be submitted with Capstone Essay to MPH Director of Community Based Education)

**My Capstone Project will address the following competencies:**

- [ ] Apply the principles of program development, planning, budgeting, resource management, and policy evaluation 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 Population Health Research 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 (To be submitted with proposal to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
☐ Capstone Progress Report (To be submitted with Progress Report to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
☐ Final Capstone Requirements (To be submitted with Capstone Essay to MPH Director of Community Based Education)

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. **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 (To be submitted with proposal to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
- [ ] Capstone Progress Report (To be submitted with Progress Report to all members of Capstone Advisory Committee and MPH Director of Community Based Education)
- [ ] Final Capstone Requirements (To be submitted with Capstone Essay to MPH Director of Community Based Education)

**My Capstone Project will address the following competencies:**

- [ ] 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
- [ ] Select 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

(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.**

<table>
<thead>
<tr>
<th>Evidence-Based Approaches to Public Health</th>
<th>Approaching Sufficiency</th>
<th>Sufficient</th>
<th>Advanced</th>
<th>Not Applicable to this Capstone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply epidemiological methods to the breadth of settings and situations in public health practice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Select quantitative and qualitative data collection methods appropriate for a given public health context</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Interpret results of data analysis for public health research, policy or practice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public Health &amp; Health Care Systems</th>
<th>Approaching Sufficiency</th>
<th>Sufficient</th>
<th>Advanced</th>
<th>Not Applicable to this Capstone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Planning &amp; Management to Promote Health</td>
<td>Approaching Sufficiency</td>
<td>Sufficient</td>
<td>Advanced</td>
<td>Not Applicable to this Capstone</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------------------------</td>
<td>------------</td>
<td>----------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Assess population needs, assets and capacities that affect communities' health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply awareness of cultural values and practices to the design or implementation of public health policies or programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design a population-based policy, program, project or intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain basic principles and tools of budget and resource management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select methods to evaluate public health programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Policy in Public Health</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate for political, social or economic policies and programs that will improve health in diverse populations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluate policies for their impact on public health and health equity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Leadership</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply negotiation and mediation skills to address organizational or community challenges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Approaching Sufficiency</td>
<td>Sufficient</td>
<td>Advanced</td>
<td>Not Applicable to this Capstone</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>------------</td>
<td>----------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Select communication strategies for different audiences and sectors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicate audience-appropriate public health content, both in writing and through oral presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe the importance of cultural competence in communicating public health content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interprofessional Practice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform effectively on interprofessional teams</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Systems Thinking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply systems thinking tools to a public health issue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please use the space below for comments, if applicable:

Evaluator’s Signature: ____________________________ Date: _____________

To Be Completed by MPH Program:

Date received: ____________________________ Received by: ____________________________
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.**

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

(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.**

<table>
<thead>
<tr>
<th>Competency</th>
<th>Approaching Sufficiency</th>
<th>Sufficient</th>
<th>Advanced</th>
<th>Not Applicable to this Capstone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiate between standard health data exchange formats and vocabularies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain how clinical data originating from different systems are collected and coded, and how they are normalized, aggregated, and analyzed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and address the ethical, regulatory, managerial, financial, and practical aspects of data security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply biomedical ontologies for integration of biomedical and health data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design biomedical terminological systems using natural language processing workflow for unstructured biomedical text</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(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.

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

(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.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Approaching Sufficiency</th>
<th>Sufficient</th>
<th>Advanced</th>
<th>Not Applicable to this Capstone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess needs for health interventions for the general public as well as at-risk populations</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Systematically evaluate health promotion strategies across typologies of evidence</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>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</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Develop health education/health promotion strategies that create an understanding of and respect for the importance of culture in practice and policy.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>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</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

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

Evaluator’s Signature: ____________________________________________ Date: _________________

<table>
<thead>
<tr>
<th>To Be Completed by MPH Program:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date approved: ______________________________</td>
</tr>
</tbody>
</table>
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.

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

(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 two weeks 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 prior to the presentation date, 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:

<table>
<thead>
<tr>
<th></th>
<th>Inadequate</th>
<th>Adequate</th>
<th>Well Done</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary Statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Please evaluate the Capstone Presentation on the following:</th>
<th>Inadequate</th>
<th>Adequate</th>
<th>Well Done</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction:</strong> Were goals, objectives, and methods of project stated clearly? Could audience grasp the scope of the project?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge of Material:</strong> Is student fluent with material/topic?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Visual Support:</strong> Did visual aids appropriately support the oral presentation (not duplicate it)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Results:</strong> 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?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Delivery:</strong> Was presenter audible and comprehensible?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Responsiveness:</strong> Did presenter respond effectively to questions posed (if any), indicating a firm grasp of the material?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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: ________________________________

21