# Table of Contents

**MHS Online Program Overview** .............................................................................................. 4  
  PFRH Policies Regarding Academic Requirements ................................................................. 4  
**MHS Program Competencies** .................................................................................................. 5  
  Degree Program Competencies ............................................................................................... 5  
  Area of Interest Competencies ................................................................................................. 5  
**Maternal and Child Health Requirements for MHS students** ................................................. 10  
**MHS Essay and Presentation Guidelines** ............................................................................. 12  
  Essay Readers ......................................................................................................................... 12  
  Responsibilities of Students and Readers .............................................................................. 12  
  Choosing a Topic and Format for the Essay ............................................................................ 13  
  Steps to Complete the Essay .................................................................................................. 13  
  General Guidelines for All Essay Formats .............................................................................. 15  
  Essay Formats ......................................................................................................................... 16  
  Methods Section for Research Report, Structured Literature Review and Evaluation Formats ..... 18  
  Evaluation Criteria for MHS Essay Readers ............................................................................ 18  
  Honors ..................................................................................................................................... 18  
  Resources/Support for Essays ................................................................................................. 18  
  Master’s Essay Deadlines ....................................................................................................... 18  
**Appendix - Essay Template** .................................................................................................... 20
MHS Online Program Overview

This PFRH handbook describes the program of study for online MHS students specializing in Maternal and Child Health (MCH). It is based on the competencies for the program shown below and the 12 foundational learning objectives required for all programs in schools of public health by the Council on Education in Public Health (CEPH). All Online MHS students should have a fundamental understanding of statistical methods and their application, epidemiology, research ethics, research methods in a selected methodological area, and expertise in MCH, as listed below, and the application of life course perspectives on health, demography and population dynamics to this area of interest.

During the program, students are required to:

- Successfully complete: Epidemiologic Inference or its equivalent; 7 units of Statistics; two (2) units of Research Ethics; Academic and Research Ethics; two (2) Research Methods courses; five MCH courses including (2) core courses which examine the application of life course perspectives on health and demography to MCH area and three (3) specific courses in MCH;
- Successfully complete courses that address the 12 foundational learning objectives required for all degree programs in schools of public health by CEPH;
- Complete an individual development plan for their studies;
- Complete a minimum of 64 academic units;
- Achieve a grade point average (GPA) of 2.75 or higher in all course work in order to be in good academic standing;
- Successfully complete the required final culminating MHS essay and presentation.

Details about course requirements and guidelines for the essay and presentation are described in the next sections of this handbook.

PFRH Policies Regarding Academic Requirements

The Director of the Master’s Programs and Academic Program Coordinator review and credential the academic progress of all Master’s students at the end of each term. A Course Selection and Tracking Form summarizing the student’s progress are provided to the advisor and student immediately after the review. The form notes if a student is making satisfactory progress as well as whether a student is fulfilling the coursework required for the program. If a student is not showing satisfactory progress, then the student and advisor are required to meet and provide a formal letter to the Director of the Master’s Programs indicating how the student will meet the necessary academic standards. For a description of satisfactory academic progress, see the section of this handbook called “Regulations for PFRH Students.”

A student who earns a “D” or “F” grade in a course that meets a core requirement must, at the next opportunity, make a second attempt to complete the core requirement either by repeating the same course or by completing another course that meets the same core requirement (if available).

If an MHS student cannot meet the above academic standards, a formal letter requesting remediation may be submitted by the PFRH Education Office to the student and advisor. Judgment concerning dismissal from the program for students demonstrating substandard academic performance will be made by the Master’s Committee in consultation with the Vice Chair of Education and Chair of PFRH.
MHS Program Competencies

This section lists all learning objectives and competencies with a set of tables showing courses fulfilling each.

CEPH Learning Objectives

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge
7. Explain effects of environmental factors on a population’s health
8. Explain biological and genetic factors that affect a population’s health
9. Explain behavioral and psychological factors that affect a population’s health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
11. Explain how globalization affects global burdens of disease
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)

All PFRH MHS students must attain proficiency in the following three (3) competencies:

1. Applying statistical methods to address the health of populations.
2. Applying epidemiological methods to address the health of populations.
3. Applying ethical concepts and tools to population health research and practice.

Degree Program Competencies

All PFRH MHS students must attain proficiency in three MHS-specific research competencies:

1. Evaluating and applying study designs for addressing research and evaluation questions about the health of populations.
2. Evaluating and applying rigorous strategies for measurement and data collection across a range of study designs.
3. Translating and communicating research findings to researchers, policy makers, and the public.

Area of Interest Competencies

All PFRH MHS students must attain proficiency in five competencies in maternal and child health:

1. Applying a life course framework to understand population health problems related to their area of interest, including multiple determinants framework for the health of populations across the life course.
2. Identifying and assessing the causes and consequences of population change using demographic methods.
3. Assessing the principal health concerns for the populations relevant to the focal area, the associated population-based risk factors, and the relative impact of each risk factor.
4. Evaluating strategies to promote population health, including health services and systems delivery strategies used to address health concerns in the relevant populations.
5. Applying frameworks specific to the focal area (beyond life course) for improving the health of the relevant populations.
### MHS Program Competencies

#### School-wide Requirements:

Students must choose the following courses for meeting school-wide competencies

<table>
<thead>
<tr>
<th>COMPETENCY</th>
<th>COURSE/ACTIVITY MEETING COMPETENCY (TERM) CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Applying statistical methods to address the health of populations.</td>
<td>140.611.81 Statistical Reasoning in Public Health I (3) AND</td>
</tr>
<tr>
<td></td>
<td>140.612.01 Statistical Reasoning in Public Health II (3 credits) (3)</td>
</tr>
<tr>
<td>2. Applying epidemiological methods to address the health of populations.</td>
<td>340.721.81 Epidemiologic Inference I (3) 5cr</td>
</tr>
<tr>
<td>3. Applying ethical concepts and tools to population health research and practice.</td>
<td>550.860.82 Academic and Research Ethics (1,2,3,4) 0cr AND</td>
</tr>
<tr>
<td></td>
<td>221.616.81 Ethics of Public Health Practice in Developing Countries (4) 2cr</td>
</tr>
</tbody>
</table>

**Recommended additional Biostatistics Course**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>140.613.11 – Data Analysis Workshop 1 (Summer Institute)</td>
<td>2 cr</td>
</tr>
<tr>
<td>140.614.11 – Data Analysis Workshop 2 (Summer Institute)</td>
<td>2 cr</td>
</tr>
<tr>
<td>330.657.81* Statistics for Psychosocial Research: Measurement</td>
<td>1 cr</td>
</tr>
<tr>
<td>140.664.81* Causal Inference in Medicine and Public Health</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

*Requires consent of the instructor

Students must also fulfill course work to achieve the CEPH learning objectives. Some courses fulfilling these objectives also fulfill competencies of the MHS program listed below

<table>
<thead>
<tr>
<th>CEPH LEARNING OBJECTIVES</th>
<th>Course/(Credits)</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Objective</td>
<td>Course/(Credits)</td>
<td></td>
</tr>
<tr>
<td>1. Explain public health history, philosophy and values</td>
<td>380.624.81 Maternal and Child Health Legislation and Programs (4) OR</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>552.601.81 Foundational Principles of Public Health (0.5)</td>
<td>1,3</td>
</tr>
<tr>
<td>2. Identify the core functions of public health and the 10 Essential Services</td>
<td>380.624.81 Maternal and Child Health Legislation and Programs (4) OR</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>552.601.81 Foundational Principles of Public Health (0.5)</td>
<td>1,3</td>
</tr>
<tr>
<td>3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health</td>
<td>380.603.81 Demographic Methods for Public Health (4)</td>
<td>3</td>
</tr>
<tr>
<td>4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program</td>
<td>380.765.81 Preventing Infant Mortality and Promoting the Health of Women, Infants and Children (3) OR</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>552.604.81 Causes and Trends in Morbidity and Mortality (0.5)</td>
<td>2, 4</td>
</tr>
</tbody>
</table>
### CEPH LEARNING OBJECTIVES

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Course/(Credits)</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.</td>
<td>340.721.81 Epidemiologic Inference in Public Health I (5)</td>
<td>3</td>
</tr>
<tr>
<td>6. Explain the critical importance of evidence in advancing public health knowledge</td>
<td>552.606.81 The Critical Importance of Evidence in Advancing Public Health Knowledge (0.5)</td>
<td>2, 4</td>
</tr>
<tr>
<td>7. Explain effects of environmental factors on a population’s health</td>
<td>552.607.81 Essentials of Environmental Health (0.5)</td>
<td>1, 3</td>
</tr>
<tr>
<td>8. Explain biological and genetic factors that affect a population’s health</td>
<td>552.608.81 Biologic, Genetic and Infectious Bases of Human Disease (0.5)</td>
<td>2, 4</td>
</tr>
<tr>
<td>9. Explain behavioral and psychological factors that affect a population’s health</td>
<td>380.604.81 Life Course Perspectives on Health (4)</td>
<td>2</td>
</tr>
<tr>
<td>10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities</td>
<td>380.604.81 Life Course Perspectives on Health (4)</td>
<td>2</td>
</tr>
<tr>
<td>11. Explain how globalization affects global burdens of disease</td>
<td>552.611.81 Globalization and Health: A Framework for Analysis (0.5)</td>
<td>2, 4</td>
</tr>
<tr>
<td>12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)</td>
<td>552.612.81 Essentials of One Health (0.5)</td>
<td>1, 4</td>
</tr>
</tbody>
</table>

All PFRH MHS students must attain proficiency in three MHS-specific research competencies:

1. Evaluating and applying study designs for addressing research and evaluation questions about the health of populations.
2. Evaluating and applying rigorous strategies for measurement and data collection across a range of study designs.
3. Translating and communicating research findings to researchers, policy makers, and the public.

Students may select from one of three methods areas: Behavioral/Social Sciences; Epidemiology or Health Services Research and Evaluation. The methods areas along with the list of courses to meet the above competencies are listed in alphabetical order below. Elective courses in each area are also listed.
### BEHAVIORAL/SOCIAL SCIENCE SPECIALTY CORE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>309.616.81</td>
<td>Introduction to Methods for Health Services Research and Evaluation, I and II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>410.635.81</td>
<td>Applications of Innovative Methods in Health Equity Research</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>550.604.81</td>
<td>Qualitative Reasoning in Public Health</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

**OR Choose one**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>224.690.81</td>
<td>Qualitative Research Theory and Methods</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>380.611.81</td>
<td>Fundamentals of Program Evaluation</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

### Data Collection and Analysis (Choose 1)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>340.727.81</td>
<td>Introduction to Health Survey Research Methods AND</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>340.601.81</td>
<td>Epidemiologic Inference in Public Health II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>309.616.81</td>
<td>Introduction to methods for Health Services Research and Evaluation, I and II</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>330.657.81</td>
<td>Statistics for Psychosocial Research: Measurement</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>224.690.81</td>
<td>Qualitative Research Theory and Methods</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.605.81</td>
<td>Fundamental Tools for Promoting Health Equity</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

A unique course must be taken to fulfill each requirement.

---

### EPIDEMIOLOGY SPECIALTY CORE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>340.722.81</td>
<td>Epidemiologic Inference in Public Health II</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

**Option 1 (340.601 Principles of Epidemiology) Professional Track**

### Study Design (Choose 1)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>340.722.81</td>
<td>Epidemiologic Inference in Public Health II</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

### Data Collection and Analysis (Choose 1)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>340.770.81</td>
<td>Public Health Surveillance</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>607.724.86</td>
<td>Applying Household Surveys to Primary Health Care Programs</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>340.727.81</td>
<td>Introduction to Health Survey Research Methods AND</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>340.701.81</td>
<td>Epidemiologic Applications of GIS</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>340.645.81</td>
<td>Introduction to Clinical Trials</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>340.861.81</td>
<td>Clinical Trials: Procedures, Design, and Interpretation of Results</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
# HEALTH SERVICES RESEARCH COURSE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>380.611.81</td>
<td>Fundamentals of Program Evaluation</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>309.616.81 AND 410.635.81</td>
<td>Introduction to Methods for Health Services Research and Evaluation, I&amp;II AND Applications of Innovative Methods in Health Equity Research</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>221.645.81</td>
<td>Large-Scale Effectiveness Evaluations of Health Programs</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>340.727.81 AND 550.640.81</td>
<td>Introduction to Health Survey Research Methods AND Qualitative Reasoning in Public Health</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>330.657.81</td>
<td>Statistics for Psychosocial Research: Measurement</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>224.690.81</td>
<td>Qualitative Research Theory and Methods</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>312.693.81</td>
<td>Introduction to Comparative Effectiveness and Outcomes Research</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>410.605.81</td>
<td>Fundamental Tools for Promoting Health Equity</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>330.650.81</td>
<td>Methods in Implementation Science</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Study Design (Choose 1)**

**Data Collection and Analysis (Choose 1)**

**Electives**
Maternal and Child Health Requirements for MHS students

Students must take a minimum of five required courses in Maternal and Child Health. The courses fulfilling these requirements must be taken in addition to core, schoolwide and departmental requirements and CEPH learning objectives. A unique course must be selected for each of the following competencies, one of which must cover content in maternal health besides 380.624.81.

1. Applying a life course framework to understand population health problems related to their area of interest, including a multiple determinants framework for the health of populations across the life course;

2. Identifying and assessing the causes and consequences of population change using demographic methods;

3. Assessing the principal health concerns for the populations relevant to the area of interest, the associated population-based risk factors, and the relative impact of each risk factor;

4. Evaluating strategies to promote population health, including health services and systems delivery strategies used to address health concerns in populations relevant to the area of interest;

5. Applying frameworks specific to the area of interest (beyond life course) for improving the health of relevant populations.

Courses taken to meet the 12 CEPH objectives can also be used to meet the area of interest competencies.

<table>
<thead>
<tr>
<th>MATERNAL AND CHILD HEALTH</th>
<th>Course/Activity Meeting Competency/(Credits)</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Applying a life course framework to understand population health problems related to their area of interest, including a multiple determinants framework for the health of populations across the life course</td>
<td>380.604 (81) Life Course Perspectives on Health (4)</td>
<td>2</td>
</tr>
<tr>
<td>2 Identifying and assessing the causes and consequences of population change using demographic methods;</td>
<td>380.603.81 Demographic Methods for Public Health (4)</td>
<td>3</td>
</tr>
</tbody>
</table>
| 3. Assessing the principal health concerns for the populations relevant to the area of interest, the associated population-based risk factors, and the relative impact of each risk factor. | 380.765.81 Preventing Infant Mortality and Promoting the Health of Women, Infants, and Children (3)  
OR  
380.623.81 Adolescent Health and Development (3) | 4 |
| 4. Evaluating strategies to promote population health, including health services and systems delivery strategies used to address health concerns in the relevant | 380.624.01 (81) Maternal and Child Health Legislation and Programs (4) | 2 |
# Maternal and Child Health Requirements for MHS students

## Maternal and Child Health

<table>
<thead>
<tr>
<th>Competency</th>
<th>Course/Activity Meeting Competency/(Credits)</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Applying frameworks specific to the area of interest (beyond life course) for improving the health of the relevant populations.</td>
<td>380.642.81 Child Health and Development (3) &lt;br&gt; OR &lt;br&gt; 380.744.81 Nutrition and Growth in Maternal and Child Health (3) &lt;br&gt; OR &lt;br&gt; 380.623.81 Adolescent Health and Development (3) &lt;br&gt; OR &lt;br&gt; 380.747.81 International Adolescent Health (3)</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

**Electives**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>380.740.81 Nutrition Programs, Policies, and Politics in the United States: The Impact on Maternal, Child and Family Health (3)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>380.762.81 HIV Infection in Women, Children &amp; Adolescents (4)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>380.633.81 Promoting Equity for Adolescents and Emerging Adults: Problem solving seminar (3)</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
MHS Essay and Presentation Guidelines

The Master’s Essay is a requirement for graduation from the MHS program in the Department of Population, Family, and Reproductive Health. The goal of the essay is for students to apply the skills and knowledge they have acquired during their academic program to a public health problem or concern of interest to them; a priority for the MHS essay is that it has a research focus even if it does not involve data analysis. In addition to the written essay, students must give a 10-minute public presentation of work from their essay.

Students should begin thinking about essay topics and format by the time they have accumulated 20 credits in the program.

During the last terms of their studies, students will register for Special Studies and Research in PFRH: Master’s Essay/Presentation (380.840), designating their first reader as the instructor. Students need to take a minimum of 2 credits of special studies each term during which they are completing the essay.

The following sections provide detailed guidelines about the essay and presentation. The MHS CoursePlus website has further details about the process.

Essay Readers

Students must have a minimum of two readers for their essay. The following guidelines must be applied:

- The students’ primary reader must be PRFH faculty.
- The students’ advisor must be one of the readers.
- The students’ second reader, if not their advisor, must have a primary or joint appointment at JHSPH.

Responsibilities of Students and Readers

Primary Reader

The primary reader has the overall responsibility of working with the student on the essay from the outline to final draft, and on preparation for the presentation. She/he must be identified as the instructor for the special studies course for the MHS Essay (380.840) in the term(s) in which the essay is completed. Students must submit an outline and essay drafts to the primary reader starting in at least 6 months prior to the term in which the essay is completed.

Second Reader

The second reader provides additional comments to the student about essay drafts. Typically, second readers provide their feedback on the second draft of the essay, once students have incorporated comments on the first draft by the primary reader. They are expected to incorporate feedback from both the primary and secondary readers in the final essay. Second readers must also provide approval for the final essay.

Third Reader

A third reader may also provide comments on the essay at any stage. If the third reader is from outside the department, students are strongly advised to discuss the roles and responsibilities of the third reader with their first reader. Third readers do not need to provide final approval for the essay.

The essay must meet the standards required by faculty of the School. However, if the student is using data affiliated with the third reader or the third reader’s agency, students should provide drafts of the essay to the third reader and discuss when feedback will be given to the student from the reader.
Choosing a Topic and Format for the Essay

In addition to selecting a topic and readers, students select one of four formats for the essay:

- Research Report
- Analysis of a Public Health Problem or Legislation Position Paper
- Structured Literature Review
- Evaluation of a Program/Project

Given the research/academic focus of MHS degree, the essay should include data to support the topic even if it is not a research report.

Students must focus on a public health concern or problem which may or may not be in their area of interest. Details on the expectations of the essay are given during the 3rd MSPH/MHS quarterly luncheon.

The student and his/her advisor must verify the knowledge and skills required for the selected essay format (see Essay Topic Form); for example, students conducting a systematic literature review for their essay must have taken a related course or work with a primary reader with methodological expertise in systematic reviews.

Steps to Complete the Essay

Step 1: Identify topic, format, and readers

Students should identify a primary reader whose research interests and expertise are in the topic area or methodology for the essay. Academic advisors must serve as a reader, but do not need to be the primary reader. Advisors serve as a useful resource for discussing potential topics of interest and providing referrals to other faculty members in the department whose expertise may better match the proposed topic of the essay. Other resources for identifying potential primary readers are the Master’s Committee Director and Associate Director, academic coordinators, the PFRH website, and school faculty directory.

Step 2: Discuss roles and responsibilities with readers

Once readers have been identified, all students should have a conversation with their readers so that each knows his/her responsibility for the essay. This discussion is especially important for readers outside PFRH and especially for third readers. A timeline should also be provided to the readers so that each is aware of when feedback should be provided. In general, readers should be given at least a minimum of one week to provide feedback to students. While not required, the student and readers also should discuss plans to publish the essay and the order of authors for the publication, if they plan to publish the results of the essay. Separate guidelines regarding authorship will be provided to the students.

Step 3: Determine Whether Essay Involves ‘Human Subjects Research’

What is ‘human subjects research’?

‘Human subjects research’ is broadly defined to include any activity involving humans that seeks to test a hypothesis or answer a scientific question. This activity can include secondary data analysis and research involving direct contact with participants. All students who plan to undertake human subjects’ research must have IRB approval before working with human subjects’ data or samples and before contacting human subjects if undertaking primary data collection. The JHSPH IRB Office (http://www.jhsph.edu/irb) is charged with assuring that human subjects research studies conducted in the School comply with internal school policies and external regulations designed to protect human subjects.
After students have identified the data source(s) for research for their essay, they should complete the online IRB Worksheet to determine additional steps (if any) needed for securing IRB approval for the essay or documenting existing approval.

For additional questions about the IRB process, please visit: https://www.jhsph.edu/offices-and-services/institutional-review-board/faqs-by-topic/.

**Step 4: Submit the Essay Topic Form**

After students have selected an essay topic and format, the Essay Topic Form must be completed and signed by the student, academic advisor, and primary reader (if different from the advisor). This form will ensure that a student has the needed skills and knowledge to complete the essay. For example, if a student decides to conduct or propose an evaluation of a project or program for the essay, he/she must have either taken the ‘Fundamentals of Program Evaluation’ course or an equivalent or had prior experience conducting an evaluation (formats listed under “MSPH Essay and Presentation Guidelines” section). Students also must indicate whether IRB approval is needed for the essay.

**Step 5: Register for 380.840 in PFRH**

Students should register for 2 to 3 credits of special studies with their primary reader using course number 380.840 in the term(s) in which the essay is completed. The number of credits is dependent on the amount of time students think they will spend on data collection, analysis, and writing during each term. Each credit is equivalent to approximately 3 hours of work per week.

**Step 6: Submit Outline of Essay to Primary Reader**

Students must submit an outline of the essay to the primary reader not later than two terms before completing the essay. The outline should contain all major headings and sub-headings of the specific essay format, with bulleted text on the content of each section. Primary readers must be given at least 1 week for feedback.

**Step 7: Submit First Draft of Essay to Primary Reader**

Students must submit a complete draft of their essay to the primary reader by the 3rd week of the term in which the essay is to be completed. The primary reader should ensure that the draft contains all necessary elements of the essay in the standardized format. Primary readers should provide feedback to the student within 2 weeks of receiving the draft essay.

**Step 8: Submit Second Draft of Essay to Primary and Secondary Readers**

Second drafts must be submitted to both the primary and second readers for final edits and recommendations by the required deadline. Both readers should provide feedback to the student within 2 weeks of receiving the second draft. Students should submit a second draft that is of reasonable quality so that faculty can complete their review and provide comments in a timely manner. Students must incorporate comments from each reader in their final draft.

**Step 9: Submit Final Draft of Paper to Primary and Secondary Readers for Approval**

Students must submit the final draft of their essay to both primary and secondary readers for approval and submission to the PFRH Academic Office. Both readers must also submit the Reader Approval Form for the essay directly to the Office. If the essay is not approved by both readers by the deadline, students may not be able to participate in the oral presentation and may be in jeopardy of not graduating.

The primary reader may nominate the student’s essay for a distinction award if the quality of the essay is deemed to be excellent. In order to be nominated, the essay must be completed by the required deadline.
Step 10: Oral Presentation of Essay

Each student is required to present his/her essay in a 10-minute PowerPoint presentation at a public seminar before the end of the term in which the essay is completed. Online presentation is available to students in May, August and December each year through the MPH office. The student’s advisor is expected to review draft presentations prior to a practice session. No video clips are allowed in the presentation.

Before students can present their essay, they must meet these conditions:

- Any existing incompletes in coursework must be rectified, with confirmation by the student’s advisor and academic coordinator,
- The essay has received final approval from first and second readers,
- All slides have been approved by the primary reader.

Failure to meet any of these conditions before the time of presentation will result in postponement of graduation.

General Guidelines for All Essay Formats

The essay should be between 15-20 pages in length, excluding the title page, acknowledgements, abstract, tables, references/bibliography, and appendices.

All essays should have a title page including: the title, student’s name, readers (identifying the advisor), and date. Please see the template included in the Appendices section at the end of the handbook. You may include an acknowledgments page (does not count toward the total).

Typing guidelines:

- Standard letter size paper 8 ½ by 11
- Double spaced/single sided (can single space block quotations)
- Type size no smaller than 11 pt.
- 1-inch margins all around
- Page numbering: title page, acknowledgments, etc., usually not numbered. Others numbered consecutively to the end of the paper
- Consistent format for all tables, figures, headings, and endnotes and/or bibliography materials

Use APA or AMA format for references; see http://www.apastyle.org/ and http://www.amamanualofstyle.com/. 
Essay Formats

The following are specific guidelines for each essay format. If a student prefers a format different from those specified below, he/she will need approval by his/her advisor and the Director of the Master’s Program.

Research Report

This format could be based on secondary data analysis (more typical) or primary data collection and analysis. IRB approval is needed for this format. The sections in this format essay are as follows:

- Structured abstract (1 page maximum)
- Should include the following headings: Background, Objective(s) of study, Methods, Results, Conclusions
- Introduction (1 to 3 pages)
- Importance of public health concern/problem
- The magnitude of problem and population affected
- Knowledge gaps and how the current study fills the gaps
- Methods (2 to 4 pages) See Methods Section below
  - Study design
  - Sample/participants
  - Data Sources
  - Measures/Topics [for quantitative analyses, include variable tables that specifies variables and how they are operationalized (e.g., categorical, ordinal, interval); for qualitative analyses, include table with domains and sample questions]
  - Data analysis
  - Results
  - Discussion with Limitations and Implications for public health practice
- References
- Tables/figures

Analysis of a Public Health Problem or Legislation Position Paper

Both formats examine a public health problem and recommend either a specific intervention strategy or policy/policies for addressing the problem. The analysis of a public health problem format offers solutions and recommendations related to intervention strategies, while a legislation position paper offers solutions and recommendations related to a policy or a set of policies. Both formats also identify concerns of key stakeholders. The sections in this essay format are as follows:

- Executive summary (2-3 pages) [Should include an Introduction and overview of public health problem and a brief discussion about how the problem could be addressed.]
- Statement of the problem (1 page)
- Magnitude of problem (1-2 pages)
- Causes/determinants of the problem (3-5 pages)
• Alternative policy strategies; and may also include an evaluation of a current policy and its impact along with the discussion of alternative policy strategies (4-6 pages)
  • Specific recommendations (2-4 pages)

Structured Literature Review
This format analyzes an important public health problem by examining the empirical literature published on the problem. The sections in this essay format are as follows:
  • Structured abstract (1 page maximum)
  • Should include the following headings: Background, Objective(s) of review, Methods, Results, Conclusions
  • Introduction (1 to 3 pages)
  • Why is the topic an important public health problem?
  • What is the magnitude of problem and population affected?
  • What are the knowledge gaps and how does the current literature review contribute to field or fill the gaps?
  • Methods (1 to 3 pages) See Methods Section below
  • Databases used
  • Search criteria
  • Analytic tables describing literature cited
  • Results (3 to 6 pages)
  • Discussion (3 to 5 pages)
  • References
  • Tables/figures

Evaluation of a Program/Project
This format involves evaluating/monitoring an existing public health program/project and could include a process, outcome, or impact evaluation. It may also be a proposed evaluation with additional details on the planned design and hypotheses to substitute for results. The sections in this essay format are as follows:
  • Introduction (1 to 2 pages)
  • Description of program/project (1 to 3 pages)
  • Need (what is the public health problem the program/project is trying to address?)
  • Target audiences (what are the groups/individuals who are targeted for the program/project?)
  • Activities of program/project
  • Objectives of program/project (1 page)
  • Logic Model of program/project (1 page)
  • Evaluation Methodology (3 to 6 pages) See Methods Section below
  • Type of evaluation
MHS Essay and Presentation Guidelines

• Indicators
• Data collection methods
• Sampling strategy and sample size
• Data analysis
• Anticipated use of results (2 to 5 pages)
• Timetable if proposed project (1 page)

Methods Section for Research Report, Structured Literature Review and Evaluation Formats
The information included in the Methods section should provide enough detail to the reader so that the quality of the study design, sampling methods, data sources, and measures can be clearly evaluated, even if the methods have been reported elsewhere. If the maximum essay length of 20 pages does not permit this level of detail, then students are encouraged to include an appendix describing additional details about the study methods. This appendix should be a supplement and not duplicate material already found in the body of the essay. Referring the reader to previous publications about the methods is not adequate.

Evaluation Criteria for MHS Essay Readers
• The student demonstrates the ability to successfully complete a cohesive and acceptable essay in the timeframe provided applying public health knowledge and skills.
• The student demonstrates the ability to make appropriate inference(s) and draw logical conclusion(s) to inform the field of public health.
• The essay is suitable for publication as a peer-reviewed journal or an organization/government report or is deemed of publishable quality.

Honors
Student essays that demonstrate excellence, as indicated by both the primary and secondary readers, can be nominated for an honorary ‘distinction’ award if the essay submission deadline is met. Nominations will be accepted from the primary reader. Student essays that receive a distinction award will be selected by the master’s committee.

Resources/Support for Essays
Students who are conducting quantitative analyses for their essays may wish to contact the biostatistics lab for assistance. Students who are conducting literature reviews for their essays may wish to contact Lori Rosman, Public Health Informationist (lrosman1@jhu.edu) or Claire Twose, Associate Director, Public Health and Basic Science Information Services (ctwose1@jhu.edu). Donna Hesson also is available for students as a resource. Additional resources for essay writing and preparing oral presentations may be found on the Welch Medical Library web site

Master’s Essay Deadlines
In preparation for completion of the MHS essay and presentation, students should contact their advisor and/or their primary reader to discuss the essay topic and format of interest to them no later than 3 terms before they plan to complete the essay. MHS Essays are due early in the term in which they plan to complete the essay, the 2nd term for a December completion, the 4th term for a May completion and the summer term for an August completion. Students should begin work on their paper no later than the start of term before they plan to complete the essay, preferably before the term begins, and complete it early in the term in which they plan to complete it. (see deadlines below). Students should begin to consider essay topics and format early in the 2nd term. Essays will be presented at a public seminar in May, December, or August.
The above estimated dates are not guidelines, they are deadlines. Failure to meet these deadlines will result in postponement of the essay presentation, which could have consequences for graduation.

<table>
<thead>
<tr>
<th>TASKS/ASSIGNMENTS</th>
<th>DUE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register for 380.840 SS/R in PFRH with Advisor for two terms</td>
<td>1st and 2nd for December completion; 3rd and 4th for May completion; 4th and summer term for an August completion</td>
</tr>
<tr>
<td>Submit one-page form to identify essay topic, format and readers</td>
<td>term before work is planned for the essay; e.g. 2nd term for May completion</td>
</tr>
<tr>
<td>If essay is a research report, work with JHBSHPH faculty to submit IRB application</td>
<td></td>
</tr>
<tr>
<td>Submit essay outline to 1st reader</td>
<td>Last month in the term before essay work begins; e.g. December for May completion</td>
</tr>
<tr>
<td>Submit completed final outline of essay</td>
<td>Beginning of term when essay work is started; e.g. January for May completion</td>
</tr>
<tr>
<td>Submit 1st draft of essay to 1st reader</td>
<td>End of the term before essay is to be completed; e.g. February for May completion</td>
</tr>
<tr>
<td>Submit copy of completed essay to 1st and 2nd reader for final edits</td>
<td>Third week of the term in essay is to be completed; e.g. March for May completion</td>
</tr>
<tr>
<td>Submit final copy (with 1st and 2nd reader’s revisions incorporated) to both readers</td>
<td>No later than the end of the 6th week of the term in which essay is to be completed; e.g. No later than the end of the 6th week of the term in which essay is to be completed; April for May completion</td>
</tr>
<tr>
<td>Submit reader approval forms from both 1st and 2nd readers</td>
<td>e.g. April for May completion</td>
</tr>
<tr>
<td>Submit PowerPoint presentation approved by 1st reader</td>
<td>One week prior to presentation</td>
</tr>
<tr>
<td>Presentation of essay</td>
<td>Early May, August or December</td>
</tr>
</tbody>
</table>
Appendix - Essay Template

[Essay Title]

[Student Full Name]
First Reader [and advisor]: [Name and Credentials]
Second Reader [and advisor]: [Name and Credentials]
Third Reader: [Name, Credentials and Organization, if applicable]
[Date]

In partial fulfillment of degree requirements for the [Master of Science in Public Health/ Master of Health Science], Department of Population, Family and Reproductive Health
Appendix - Essay Template

Beginning of Essay