

**Michigan State University
College of Human Medicine
Division of Public Health**

**Master of Public Health
Integrative Learning Experience
Handbook**

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Master of Public Health
College of Human Medicine
MICHIGAN STATE UNIVERSITY

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What is HM 893: Public Health Integrative Learning Experience?

The Integrative Learning Experience (ILE) demonstrates the student's attainment of MPH Foundational and General Concentration Competencies through a written product that may take several forms. The ILE is completed through a capstone course (HM 893) taken at or near the end of the student's program of study (i.e., in the final year or term).

Prior to enrollment, the student should contact the Culminating Experience coordinator to discuss capstone paper topics and options. Additionally, the Culminating Experience coordinator and the student will select the MPH Foundational and General Concentration Competencies appropriate to the student's educational and professional goals that the student will integrate into the ILE. The student then works with the Culminating Experience coordinator to complete the Capstone Paper Proposal form. The proposal is then submitted to the HM 893 course instructor for final approval for enrollment.

After enrollment, the student will be assigned an ILE mentor. Both mentor and mentee will further confirm and/or refine the capstone paper topic. The student will then work to produce a high-quality written product that is appropriate for the student's educational and professional objectives. Written products include one of the following capstone paper options: primary research, secondary research, systematic review, research proposal, public health intervention evaluation, or a public health program proposal. It is highly recommended the capstone paper option align with the selective course previously completed by the student (i.e. HM 807, HM 853, HM 880). The written product should be developed and delivered in a manner that is useful to external stakeholders, such as non-profit or governmental organizations. At the end of the course, the student must also give an ILE project oral presentation that utilizes a prepared PowerPoint presentation.

Student submissions are retained in the global Turnitin repository.

MSU MPH Selectives

To support a student in completing a successful ILE project, the MPH program has developed a series of methodological courses – “selectives” – that correspond to the various capstone paper options. To ensure success, it is strongly encouraged that a student discuss their interests and ideas with the MPH faculty mentor and, when needed, the CE coordinator prior to enrollment in a selective. With this guidance, the student should then enroll in the selective course that aligns with their preferred capstone paper option.

Selectives should be chosen based on the student's personal and professional developmental needs as well as the tools that will be required for the capstone paper option. Selective instructors are also invaluable resources for capstone students regarding the methods design portion of their capstone papers.

The MPH selective courses are as follows:

- HM 807: Practical Application & Critical Thinking Synthesis in Public Health
 - Correlating capstone paper option: Systematic Review
- HM 853: Public Health Program & Intervention Evaluation
 - Correlating capstone paper option: Public Health Intervention Evaluation or Public Health Program Proposal

- HM 880: Study Design and Research Methods for Public Health Practice
 - Correlating capstone paper option: Primary Research Option (e.g., evaluating a unique data set), Secondary Research Option (e.g., conducting secondary data analysis), or Research Proposal Option

Capstone Paper Topic Selection

An ILE student is often challenged to select a capstone paper topic and option. The student should conduct preliminary research into subjects that interest them. Scholarly articles can be informative and can provide additional insights such as existing research limitations or suggestions for future research. Similarly, literature references can lead to other publications, references, and topics of interest. It is highly recommended the student start considering capstone paper topics as early as possible during the MPH curriculum.

The student is encouraged to explore capstone paper topics that reflect their interests with the HM 893 course instructor sooner rather than later. The student's MPH faculty mentor, selective instructor, and the Culminating Experience coordinator are additional resources to a student when selecting a topic.

The capstone paper may be based on the APE or may be written on a separate topic. When the APE is used as the basis for the capstone paper, the capstone paper must not simply be a description of what the practicum experience entailed. The capstone paper must focus on a new aspect of the student's practicum or reflect a novel contribution to the defined public health topic. If the paper builds directly from the APE, increased contact time with the practicum site supervisor or organization may be necessary for the successful completion of the ILE.

Institutional Review Board Approval

Source: <https://hrpp.msu.edu/help/manual/6-9-A.html>

Institutional Review Board (IRB) approval is required if the selected capstone paper topic meets the definition of "research involving human subjects"; research in this circumstance is defined as "a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge". Prior to initiation of the project, it must be determined exempt or reviewed and approved by the IRB. If needed, the student will be required to work with the HM 893 course instructor and their ILE mentor to prepare and submit an application to MSU's IRB prior to beginning research for their capstone paper. (See the section "Michigan State University Policies on Research Involving Human Subjects" on page 11 of this handbook.)

Please Note: For any capstone project that requires IRB approval, the student is required to select the two-term ILE option. The student must start the IRB application at minimum two weeks prior to the start of their project.

Competency Selection & Integration

The Culminating Experience coordinator will work with the student to identify which student-selected MPH Foundational and General Concentration Competencies will be demonstrated in the capstone paper. Each student is required to address MPH Foundational Competency number 19 and General Concentration Competency number 1.

- FC 19: Communicate audience-appropriate public health content, both in writing and through oral presentation
- GC1: Propose a program evaluation, systematic review, or research study to address a public health issue

The student must select at least one additional competency with a maximum of three additional competencies. The student should make this selection after reflecting on the following:

- 1) Which competencies should be reinforced? To answer this, students should
 - a. identify competencies with which they struggled throughout the program and would like to enhance,
 - b. identify competencies that reflect professional interests and goals.
- 2) What do my MPH faculty mentor, HM 893 course instructor, and the CE coordinator recommend? (See competencies in Appendix A.)

Capstone Paper Options

The capstone paper is a research paper that focuses on a specific public health topic area and is of sufficient depth and detail to inform the practice community. The paper should be based on a current public health problem or issue that involves an interdisciplinary approach to address a public health problem. There are several options for the capstone paper but the option to be pursued should be a function of the selective course previously completed by the student as well as the student's personal and professional interests/goals.

Research Options

1. Primary Research: the student designs research, collects data, and analyzes findings to produce a report.
 - Correlating selective: HM 880 - Study Design and Research Methods for Public Health Practice.
2. Secondary Research: the student must analyze an adequate amount of available (secondary) data and report findings.
 - Correlating selective: HM 880 - Study Design and Research Methods for Public Health Practice.
3. Systematic Review: significant amounts of existing research and reports must be available for a systematic review or potentially meta-data analysis.
 - Correlating selective: HM 807 - Practical Application & Critical Thinking Synthesis in Public Health

Research Proposal Option

4. Research Proposal: the student identifies public health knowledge gaps, designs research to generate data, and proposes analyses.
 - Correlating selective: HM 880 - Study Design and Research Methods for Public Health Practice

Public Health Intervention Options

5. Public Health Intervention Evaluation: the student designs an evaluation scheme of a public health program.
 - Correlating selective: HM 853 - Public Health Program & Intervention Evaluation
6. Public Health Program Proposal: the student identifies a public health issue and designs a program to mitigate the concern.
 - Correlating selective: HM 853 - Public Health Program & Intervention Evaluation

Two-Term Integrative Learning Experience Option

A student has the option to complete the ILE over the course of two consecutive semesters. *This is recommended*, as the additional time to complete the capstone paper better ensures successfully passing the course. A two-term ILE is required for the Primary Research capstone paper option or any capstone project that requires IRB approval. Selection of the two-term ILE option occurs on Capstone Paper Proposal form as part of the ILE application process.

Expectations of a two-term ILE student are confirmed during the application process by the HM 893 instructor with the academic advisor's concurrence.

The first-term expectations of a two-term ILE student typically are as follows:

- Confirm the capstone paper topic, option, and competencies to be addressed with the HM 893 instructor prior to the start of the first term.
- Confirm the thesis statement supporting the chosen capstone paper option with the ILE mentor.
- Prepare research questions (if a research option has been chosen) with the ILE mentor's concurrence.
- Precisely define the target public health population and accompanying concern with the ILE mentor's concurrence.
- Complete an initial literature review that confirms the chosen capstone paper topic and option for the ILE mentor's and HM 893 course instructor's feedback.
- Submit a mentor-reviewed sectional draft to the dropbox in the course space.
- Submit a first draft that at minimum includes the initial literature review or background section - depending on the capstone paper option - for the ILE mentor's and HM 893 course instructor's feedback.
- Attend all required Zoom meetings.
- Submit all assignments on time.

The second-term expectations of two-term ILE students typically are as follows:

- Refine the research and first draft based on the ILE mentor's and HM 893 course instructor's feedback from the first term.
- Submit a second draft that includes all major sections of the paper.
- Refine the research and second draft based on the ILE mentor's and HM 893 course instructor's feedback.
- Submit a mentor-reviewed final draft for evaluation by the first and second reviewers;
- Orally present the ILE project.
- Attend all required Zoom meetings.
- Submit all assignments on time.

One-Term Integrative Learning Experience Option

In some situations, the student must enroll in the ILE, pay in full, and complete the requirements within one semester (e.g., due to student financial aid restrictions). This scenario is the traditional one-term model for the ILE. The one-term ILE option is selected during the application process. The expectations of a one-term ILE student include all of the above requirements for two-term students.

In the event a student needs additional time to complete their requirements, a conditional grade may be granted if the advisor, ILE mentor, and HM 893 instructor agree that the student is likely to pass within the approved additional timeframe. Conditional grades do not require re-registering for the ILE or paying for additional credits. Instead, the conditional grade is submitted to the Office of the Registrar at the end of the term in lieu of a grade. A final grade is awarded after all work has been completed and graded.

Pre-Capstone Library Guide for MPH Students

The MPH librarian has created a library guide specific to MPH students working toward the completion of their ILE. It is highly recommended that a student access the library guide prior to beginning their Capstone Paper Proposal. This library guide provides resources based on the capstone paper option the student has selected. A student is welcome to reach out to the MPH librarian at any point with questions regarding the library guide.

A student can access the *Pre-Capstone Guide for MPH Students* by following this link:

<https://libguides.lib.msu.edu/mphce>.

Roles and Responsibilities

Several resources are available to help a student successfully plan for and complete their ILE. The roles and responsibilities of the student and the various resources available to a student are all summarized in Appendix A: Roles and Responsibilities.

Integrative Learning Experience Deliverables

1. Capstone Paper
2. Integrative Learning Experience PowerPoint
3. Integrative Learning Experience Oral Presentation

Capstone Paper

General Guidelines

- Grammar, quality of writing, and overall presentation are crucial considerations in determining whether final capstone papers are passable or require rewriting.
- Maximum length of 30 pages (double-spaced, exclusive of tables and references). If the student's topic requires more than 30 pages, the student can request approval from the HM 893 course instructor to submit additional pages.
- The capstone paper should be written for a general public health audience. The student should not assume that reviewers of the final submission have expertise on the topic chosen for the paper.

Specific Guidelines

- The capstone paper must address the required and student-selected competencies.
- Capstone paper requirements vary with the chosen capstone paper option. The student should be familiar with the appropriate rubric. ILE rubrics are not completely prescriptive nor are they intended to be comprehensive. Instead, the rubrics describe expected considerations and requirements when assessing the robustness and rigor of a capstone paper.
- **Capstone papers must follow the structure below.** Regardless of the chosen capstone paper option, all of the following information must be included in the capstone paper:
 1. Title Page: clear description of work, student name, and date
 2. Abstract: summary of key points
 3. Introduction: background including the significance of the public health issue as evident in the literature
 4. Thesis/Problem Statement: the public health problem of a specific target population
 5. Content: supports thesis/problem statement
 - a) Evidence: summary of past findings related to the topic
 - b) Material and Methods: as appropriate
 - c) Results: as appropriate
 6. Discussion: includes limitations
 7. Conclusions: includes recommendations and future needs
 8. References: comprehensive and relevant scholarly resources are required
 9. Appendices: as appropriate

Integrative Learning Experience PowerPoint

General Guidelines

- The PowerPoint is a professional prepared presentation (i.e. neat and orderly appearance and devoid of grammatical and spelling errors).
- The PowerPoint should not focus just on the capstone paper, but should represent the entire ILE.

Specific Guidelines

- The student uses the PPT template provided in the course (this is a requirement; submissions not on this template will be returned to student for revision).
- The student provides presenter's notes on key discussion items for each slide (written in the "Notes Section").
- 15-slide maximum.

Integrative Learning Experience Oral Presentation

General Guidelines:

- The student gives an oral presentation of their ILE project using their ILE PowerPoint file as the presentation materials.
- The student must orally present their ILE project to the HM 893 course instructor and the ILE mentor. A virtual audience will be invited that includes MPH students, faculty, and staff.
- The presentation should not focus just on the capstone paper, but should represent the entire ILE.

Specific Guidelines:

- The student must demonstrate MPH Foundational Competency number 19 and any applicable student-selected competencies.

Forms and Rubrics

The student will reference the following forms and rubrics to aid in completion of the ILE. All submissions must be typed (not handwritten).

- Appendix C: Capstone Paper Proposal (pg. 21)
 - This form is to be used by the student to develop a capstone paper proposal. The form is submitted to the HM 893 course instructor by e-mail (a minimum of thirty days prior to the start of the semester of enrollment) for iterative review until approved.
- Appendix D: Capstone Paper Rubrics (pg. 24)
 - These rubrics (3) are used by the HM 893 course instructor and second reviewer to assess the student's deliverables. It is recommended the student review the rubric for the selected option to understand the basic expectations of the capstone paper and how final submissions are evaluated by the reviewers. ILE rubrics are currently being redeveloped. Updated rubrics will be released to students as soon as they are finalized. The current rubrics will be utilized until redevelopment is complete.

Completing HM 893: Public Health Integrative Learning Experience

Prior to Enrollment in the Integrative Learning Experience

Enrollment in HM 893 requires a student to have received a passing grade of at least a 3.0 in each of the foundational, selective, and core courses. Because the completion of the ILE provides evidence of the student's ability to synthesize and integrate knowledge acquired during the degree program, a student ***may not enroll*** in the ILE while taking foundational courses, selectives, core courses, or any electives considered pertinent to the completion of the ILE. It is highly recommended the student complete the APE prior to enrollment in the ILE; however, because of financial aid reasons, some students may find it necessary to enroll in both concurrently.

Before enrolling in the Integrative Learning Experience, the student must

- contact their academic advisor to discuss their intent to enroll in HM 893;
- meet with the available resources (e.g., MPH faculty mentor, Culminating Experience coordinator, HM 893 course instructor, etc.) to discuss potential capstone paper topics, options, and competencies;
- with the help of the CE coordinator, prepare the Capstone Paper Proposal form and submit it to the HM 893 course instructor for approval. As the approval process is an iterative effort and a refining process between the student and the CE coordinator, the Capstone Paper Proposal form should be started as soon as possible, but at minimum thirty days prior to the start of the semester of enrollment;
- complete any additional requirements as needed (e.g., IRB application). The student should contact the CE coordinator for assistance, when necessary.

During the Integrative Learning Experience

While enrolled in HM 893, the student must

- research the approved capstone paper topic;
- attend the required Zoom meetings throughout the course;
- complete and submit the ILE mentor-reviewed sectional draft via the appropriate HM 893 course assignment box;
- complete first and second drafts of the capstone paper and submit them to the ILE mentor and the course instructor via the appropriate HM 893 course assignment boxes;
- submit the ILE-mentor-reviewed final capstone paper to the HM 893 course assignment box in the course for grading as soon as possible but no later than the posted due date;
- orally present the ILE project (as defined in the course syllabus);
- make all submissions according to the timing as defined in the course syllabus.

After Integrative Learning Experience is Complete

Capstone Paper Evaluation

Evaluation of the final capstone paper is done by the HM 893 course instructor (i.e. the first reviewer) and an assigned MPH faculty member (i.e. the second reviewer). Note: ILE mentors are not permitted to evaluate their own mentee's capstone paper. Capstone paper rubrics specific to the selected capstone paper option are completed independently by the first and second reviewers. The reviewers then collaborate on a final grade. A third faculty reviewer is engaged if the first and second reviewers cannot agree on a final grade. A minimum grade of 3.0 is required for successful completion of the ILE. A final grade and all reviewer feedback is provided to the student by the course instructor via D2L.

If either the first or second reviewer determines the paper is not passable, the student is given all of the available reviewer feedback. The student is then offered a rewrite opportunity of one week to address the criticisms and submit a rewritten capstone paper to be evaluated on a pass/no-pass basis (i.e. 3.0 minimum grade required to pass). The student's ILE mentor is expected to take lead in reviewing the feedback with the student and provide guidance during the rewrite process. Rewritten capstone papers are reviewed again as described above. Only one rewrite opportunity is allowed.

ILE Project Oral Presentation Evaluation

The student is assessed on overall presentation, quality of response to questions, and critical thinking skills. The HM 893 course instructor and ILE mentor provide written feedback that will incorporate positive and negative criticisms and they will collaborate to evaluate on a pass/no-pass basis. A student whose presentation is deemed not passable may be required to revise/repeat their presentation before final grading can be completed.

Add to Portfolio

The student will submit the final capstone paper, all reviewers' feedback, completed rubrics, the oral presentation PPT file, and all presentation feedback to their portfolio.

Michigan State University Policies on Research Involving Human Subjects

Responsible Conduct of Research and Scholarship

The College of Human Medicine supports responsible conduct of research for all students in the college who perform research. Education and training are provided to assist students. Please reference the *Master of Public Health Student Handbook* for more information.

University Committee on Research Involving Human Subjects (UCRIHS)

The University Committee on Research Involving Human Subjects is an Institutional Review Board (IRB). Federal and University regulations require that all research projects involving human subjects be reviewed and approved by an IRB **before initiation**. All projects must receive UCRIHS approval, even those that do not have direct contact with human subjects (such as secondary data sources). Under the regulations, research is defined as a formal investigation designed to develop or contribute to

generalizable knowledge. A human subject of research is an individual (1) from whom an investigator obtains data or (2) about whom the researcher obtains confidential information.

Faculty and the student must submit the proper forms when the research undertaken by the student will include actively gathering data from human subjects as described above and/or use of either current or established data of human subjects gathered at a previous time. Before a student begins any research project, the student must consult with the HM 893 course instructor for help determining if an IRB review is required and, if needed, contact the CE coordinator for help with the IRB application. For more information about the review process, contact the UCRIHS office at (517) 355-2180, irb@msu.edu, or go to room 207, Olds Hall. Information is also available at <http://hrpp.msu.edu/>.

Integrity and Safety in Research and Creative Activities

This information and more can be found by visiting

<https://grad.msu.edu/sites/default/files/content/researchintegrity/guidelines.pdf>.

The conduct of research and creative activities by faculty, staff, and students is central to the mission of Michigan State University and is an institutional priority. Faculty, staff, and students work in a rich and competitive environment for the common purpose of learning, creating new knowledge, and disseminating information and ideas for the benefit of their peers and the general public. The stature and reputation of MSU as a research university are based on the commitment of its faculty, staff, and students to excellence in scholarly and creative activities and to the highest standards of professional integrity. As a partner in scholarly endeavors, MSU is committed to creating an environment that promotes ethical conduct and integrity in research and creative activities.

Innovative ideas and advances in research and creative activities have the potential to generate professional and public recognition and, in some instances, commercial interest and financial gain. In rare cases, such benefits may become motivating factors to violate professional ethics. Pressures to publish, to obtain research grants, or to complete academic requirements may also lead to an erosion of professional integrity.

Breaches in professional ethics range from questionable research practices to misconduct. The primary responsibility for adhering to professional standards lies with the individual scholar. It is, however, also the responsibility of advisors and of the disciplinary community at large. Passive acceptance of improper practices lowers inhibitions to violate professional ethics.

Integrity in research and creative activities is based not only on sound disciplinary practice but also on a commitment to basic personal values such as fairness, equity, honesty, and respect. These guidelines are intended to promote high professional standards by everyone - faculty, staff, and students alike.

Integrity in research and creative activities embodies a range of practices that includes the following:

- honesty in proposing, performing, and reporting research
- recognition of prior work
- confidentiality in peer review
- disclosure of potential conflicts of interest
- compliance with institutional and sponsor requirements

- protection of human subjects and humane care of animals in the conduct of research
- collegiality in scholarly interactions and sharing of resources
- adherence to fair and open relationships between senior scholars and their coworker(s)

Appendix A: Roles and Responsibilities

Resource	Role	Prior to ILE	During ILE
Student		<ul style="list-style-type: none"> • Utilizes provided resources to discuss, identify, and develop potential capstone paper topics. • Works with the Culminating Experience coordinator (in addition to the MPH faculty mentor) to identify competencies to be addressed in the capstone paper. • Once a capstone paper topic and competencies are determined, discusses the capstone paper topic, option, thesis statement, research questions, expected outcomes (option dependent), and selected competencies with the CE coordinator. • Drafts and submits the Capstone Paper Proposal form for iterative review to the CE coordinator <u>at minimum 30 days prior to the start of the semester of enrollment</u>. • Submits Capstone Paper Proposal for final approval to the course instructor. • Initiates contact with the ILE mentor as soon as one is assigned. • Discusses the capstone paper topic, option, thesis statement, research questions, expected outcomes (option dependent), and selected competencies with the mentor and refines them as necessary. • Conducts a preliminary literature review to substantiate the identified public health concern. 	<ul style="list-style-type: none"> • Regular, ongoing communication with the course instructor and ILE mentor is required for successful completion of the ILE. • Accesses the course in D2L as soon as it opens and reviews course syllabus. • Attends all Zoom meetings. • Completes all assignments according to schedule. • Requests advanced permission from the course instructor if assignments cannot be completed or Zoom meetings cannot be attended according to schedule. • Allows the ILE mentor adequate time to review and comment on all “mentor-reviewed” assignments prior to due dates. • Continues to work on the capstone paper while the ILE mentor and the course instructor evaluate and prepare feedback to submissions. • Implements suggestions from ILE mentor and HM 893 course instructor. • Prepares an oral presentation for the ILE mentor and the HM 893 course instructor as defined by the course syllabus.

Resource	Role	Prior to ILE	During ILE
MPH Faculty Mentor	The MPH faculty mentor is an MPH resource assigned to the student at the beginning of the program. The faculty mentor is an MPH program faculty member who has a background in various areas of the public health field. The MPH faculty mentor is intended to help the student develop professionally throughout their studies.	<ul style="list-style-type: none"> • From the beginning of the program, works with the student to help identify their public health interests and goals and how they relate to the chosen selective course and subsequently the capstone paper option pursued. • Works with the student (in addition to the CE coordinator) to select competencies to be addressed in addition to the required competencies. 	<ul style="list-style-type: none"> • No specific role; the student is encouraged to continue to work with their MPH faculty mentor as they progress through the ILE.
Culminating Experience Coordinator	The CE coordinator is an MPH resource who works with the student throughout their Integrative Learning Experience.	<ul style="list-style-type: none"> • Acts as a resource to the student (in addition to the MPH faculty mentor) when choosing the appropriate selective course (that determines the capstone paper option). • Works with the student when determining capstone paper topics and options and reviews Capstone Paper Proposal form prior to submission to the course instructor. • Works with the student (in addition to the MPH faculty mentor) to select competencies to be addressed in addition to the required competencies. 	<ul style="list-style-type: none"> • Provides ongoing support to students during the ILE. • Assists the course instructor as needed in selecting capstone paper second reviewers. • Acts as the third capstone paper reviewer when necessary. • Participates in the decision to issue conditional grades when necessary.

Resource	Role	Prior to ILE	During ILE
Integrative Learning Experience Mentor	ILE mentors are MPH faculty who have expertise with the selected capstone paper topics and methodologies. (A student may request a specific MPH faculty member as their ILE mentor. The HM 893 course instructor must approve this in advance of enrollment.)	<ul style="list-style-type: none"> • Provides advice and guidance to the student on the approved (pre-enrollment) capstone paper topic. • Guides the student throughout the development of their capstone paper proposal by providing topical expertise, guidance, and feedback. 	<ul style="list-style-type: none"> • Participates in regular, ongoing communication with the student. • Provides advice and guidance to the student regarding a preliminary literature review, initial thesis, initial research questions, and initial expected outcomes (option dependent). • Reviews capstone paper drafts and provides topical expertise and substantive feedback to the student. • Provides feedback on the student's oral presentation. • Champions the student's need for a conditional grade when appropriate. • Prepares a timeline of required actions with the student as part of the conditional grade process when necessary. • When a conditional grade is issued, mentors the student during the extension period. • Takes lead in utilizing capstone paper reviewers' feedback to guide the student when a rewrite opportunity is necessary.

Resource	Role	Prior to ILE	During ILE
<p>HM 893 Course Instructor</p>	<p>The HM 893 course instructor is an MPH program faculty member responsible for the curriculum, who has a background in various areas of the public health field as well as the practical experience necessary to effectively guide the student through the multiple aspects of their Integrative Learning Experience.</p>	<ul style="list-style-type: none"> • When needed, provides advice and guidance to the student on writing a thesis statement, research question(s), or expected outcomes (option dependent). • When needed, provides advice and guidance (in addition to the CE coordinator) to the student on selecting competencies. • Reviews and approves the Capstone Paper Proposal form. • Submits approved Capstone Paper Proposal form to academic advisors via CHM.MPH_Overrides@msu.edu. • Prepares the student for what they should expect during the capstone paper process. 	<ul style="list-style-type: none"> • Participates in regular, ongoing communication with the student. • Monitors student progress through submission of required documents according to the course syllabus. • Maintains periodic communication with ILE mentors as needed. • Provides timely and substantive feedback throughout the writing process. • Provides feedback on the student's oral presentation. • Reviews and grades final submissions of all capstone papers (as the first reviewer). • Assesses that the identified competencies have been successfully demonstrated. • Collaborates with the second reviewer to determine a final grade for the capstone paper. • Provides the student with reviewers' feedback. • Informs the student of a capstone paper rewrite opportunity (not to exceed one week) if either reviewer deems the work not passable. • Informs the student of the final grade. • Facilitates the evaluation of a final capstone paper prior to the expiration of a conditional grade, when necessary.

Resource	Role	Prior to ILE	During ILE
Academic Advisor	The academic advisor is assigned to the student at the beginning of the MPH experience. The academic advisor plays a limited role in a student's ILE but is available to help the student resolve uncertain situations.	<ul style="list-style-type: none"> • Processes instructor-approved Capstone Paper Proposal forms to enroll the student into HM 893. • Discusses any further curriculum planning outside of the Integrative Learning Experience. 	<ul style="list-style-type: none"> • Informs the course instructor of any circumstances that may impede the student for completing assignments on time. • Reviews the student's completed curriculum in preparation for the student submitting an application for graduation. • Leads the conditional grade request process when necessary.

Appendix B: Competencies

MPH Foundational Competencies

(Source: https://storage.googleapis.com/media.ceph.org/wp_assets/2016.Criteria.pdf)

Evidence-based Approaches to Public Health

1. Apply epidemiological methods to the breadth of settings and situations in public health practice
2. Select quantitative and qualitative data collection methods appropriate for a given public health context
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
4. Interpret results of data analysis for public health research, policy, or practice

Public Health & Health Care Systems

5. Compare the organization, structure and function of healthcare, public health, and regulatory systems across national and international settings
6. 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

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

Policy in Public Health

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

Leadership

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

Communication

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

Interprofessional Practice

21. Perform effectively on interprofessional teams

Systems Thinking

22. Apply systems-thinking tools to a public health issue

MSU Master of Public Health General Concentration Competencies

The MSU MPH General Concentration Competencies that reflect the program mission, vision, and values include the following:

1. Propose a program evaluation, systematic review, or research study to address a public health issue
2. Conceptualize a program, service, or policy designed to prevent, reduce and/or mitigate health inequities using a health equity framework
3. Apply the principles of community engagement and associated methodologies to public health practice
4. Apply a systematic approach in the investigation of the relationship between environmental agents and adverse health outcomes with consideration of the social determinants of health and advancing health equity
5. Analyze the ethical assumptions and implications underlying decisions in public health practice

Appendix C: Capstone Paper Proposal

TO BE COMPLETED BY THE STUDENT WITH GUIDANCE FROM THE HM 893 COURSE INSTRUCTOR.
 INITIAL DRAFT MUST BE SUBMITTED TO HM 893 COURSE INSTRUCTOR AT MINIMUM THIRTY DAYS PRIOR TO
 PLANNED ENROLLMENT SEMESTER.
 MUST BE COMPLETED AND APPROVED PRIOR TO REGISTRATION FOR HM893.

Section 1: Student, Advisor, and Course Instructor Information

Student:

Student Name	
PID	
MSU Email	
One-Term or Two-Term Option	
Planned HM 893 Semester(s)	

MSU Faculty and Mentor:

Academic Advisor	
MPH Faculty Mentor	

Section 2: Capstone Paper Option

Please select the capstone paper option as determined by the correlating selective taken.

Selection	Capstone Paper Option
<input type="checkbox"/>	Primary Research (Prerequisite: HM 880 Study Design and Research Methods for Public Health Practice) (Two-term option is required.)
<input type="checkbox"/>	Secondary Research (Prerequisite: HM 880 Study Design and Research Methods for Public Health Practice)
<input type="checkbox"/>	Systematic Review (Prerequisite: HM 807 Practical Application & Critical Thinking Synthesis in Public Health)
<input type="checkbox"/>	Research Proposal (Prerequisite: HM 880 Study Design and Research Methods for Public Health Practice)
<input type="checkbox"/>	Public Health Intervention Evaluation (Prerequisite: HM 853 Public Health Program & Intervention Evaluation)
<input type="checkbox"/>	Public Health Program Proposal (Prerequisite: HM 853 Public Health Program & Intervention Evaluation)

Section 3: Overview of Capstone Paper Topic

There are many resources available to a student for identifying potential capstone paper topics, including peer-reviewed public health publications and the resources available through public health professional associations. By reviewing these resources, a student can identify topics of importance to public health practice. A student can also review the readings that were assigned in previous MPH courses for ideas. Regardless of the capstone paper topic of interest, *conducting a preliminary literature review is highly recommended.*

Student resources are available in the library guide, *Pre-Capstone Guide for MPH Students*:
<https://libguides.lib.msu.edu/mphce>.

Is the capstone paper topic a continuation of the student's practicum experience or research?

- Yes
- No

If yes, *briefly* describe the practicum and how it relates to the capstone paper:

Brief Capstone Paper Topic and Option Description:

Briefly describe the proposed capstone topic and option below or as an attachment (500 words or less).

Section 4: Competencies

The student must identify a set of competencies (selected from MPH Foundational and General Concentration Competencies in Appendix B) that will be addressed in the capstone paper project. In addition to the two required competencies (see below), the student must select a minimum of one additional competency and a maximum of three additional competencies. These should be determined with the assistance of the Culminating Experience coordinator and the MPH faculty mentor.

Competency	Specific Competency
1	FC19. Communicate audience-appropriate public health content, both in writing and through oral presentation. Type: Foundational
2	GC1: Propose a program evaluation, systematic review, or research study to address a public health issue Type: General Concentration
3 Student-Selected	Type:
4 Student-Selected	Type:
5 Student-Selected	Type:

Signatures:

The student should electronically sign the form (below) only after it has been completed to the student's satisfaction. The student's signature affirms that they have read the ILE Handbook and are familiar with its contents. The instructor will then electronically sign the form and forward it to the appropriate advisor to initiate enrollment in HM 893.

Student: _____ Date: _____

Course Instructor: _____ Date: _____

Appendix D: Integrative Learning Experience Rubrics

Research Option Rubric

Capstone Paper Rubric: Research Option									
Student Name:		Date:							
Reviewer Name:									
Element	Description	Well Above Expectations 4.0	At Expectation Levels 3.5	Below Expectations 3.0	Failing				
		Expectations detailed in D2L course/ILE Handbook exceeded	Expectations detailed in D2L course/ILE Handbook met	Expectations detailed in D2L course/ILE Handbook not fully met	Expected elements detailed in D2L course/ILE Handbook not included				Missing completely
					2.5	2.0	1.5	1.0	0.5
FINAL PAPER EVALUATION	<ul style="list-style-type: none"> Paper can be read and understood by any public health professional Synthesizes academics and is practice appropriate for use in a professional setting Topic significant to public health practice Paper written in 3rd person Paper written in APA format 12-18 pages, double-spaced (not including refs), 12-point font 								
Abstract	Grade								
	<ul style="list-style-type: none"> Summary of background, methods, results, and conclusions 1/2 page in length 								
Introduction	Grade								
	<ul style="list-style-type: none"> Background and statement of the problem to be discussed Effectively enables reader to anticipate the paper 								
Thesis Statement	Grade								
	<ul style="list-style-type: none"> Statement of question addressed throughout the paper Readily identifiable, clear, concise, and coherent 								
Methods	Grade								
	<ul style="list-style-type: none"> Supports thesis statement significance, originality, and assessment of evidence presented Description of methods and theory used 								
Results	Grade								
	<ul style="list-style-type: none"> Supports thesis statement significance, originality, and assessment of evidence presented Tables and figures used where appropriate 								

Capstone Paper Rubric: Research Option

Student Name:		Date:								
Reviewer Name:										
Element	Description	Well Above Expectations 4.0	At Expectation Levels 3.5	Below Expectations 3.0	Failing					
		Expectations detailed in D2L course/ILE Handbook exceeded	Expectations detailed in D2L course/ILE Handbook met	Expectations detailed in D2L course/ILE Handbook not fully met	Expected elements detailed in D2L course/ILE Handbook not included					Missing completely
					2.5	2.0	1.5	1.0	0.5	0.0
Discussion	Grade									
	<ul style="list-style-type: none"> Supports thesis statement significance, originality, and assessment of evidence presented Evidence presented supports thesis, results, discussion, consideration of limitations/weaknesses/strengths 									
Conclusion and Recommendations	Grade									
	<ul style="list-style-type: none"> Clearly and accurately summarizes paper based on evidence presented Includes recommendations for further study or action Incorporates core disciplines in conclusions and recommendations <ul style="list-style-type: none"> Epidemiology Biostatistics Social and Behavioral Public Health Administration Environmental Health 									
References and Bibliography	Grade									
	<ul style="list-style-type: none"> Formal bibliography Includes at least six scholarly sources Appropriate citations and use of quotations in the body of the paper APA format used 									
Overall Paper Presentation	Grade									
	<ul style="list-style-type: none"> Effective organization of evidence Reader can easily follow Basic mastery of written English: grammar, syntax, word usage, etc. Tables, graphs, maps, diagrams, photographs used appropriately and support content 									
Overall Comments:										

Research Proposal Option Rubric

Capstone Paper Rubric: Research Proposal Option										
Student Name:		Date:								
Reviewer Name:										
Element	Description	Well Above Expectations 4.0	At Expectation Levels 3.5	Below Expectations 3.0	Failing					
		Expectations detailed in D2L course/ILE Handbook exceeded	Expectations detailed in D2L course/ILE Handbook met	Expectations detailed in D2L course/ILE Handbook not fully met	Expected elements detailed in D2L course/ILE Handbook not included					Missing completely
					2.5	2.0	1.5	1.0	0.5	0.0
FINAL PAPER EVALUATION	<ul style="list-style-type: none"> Paper can be read and understood by any public health professional Synthesizes academics and practice appropriate for use in a professional setting Topic significant to public health practice Paper written in 3rd person Paper written in APA format 12-18 pages, double-spaced (not including refs), 12-point font 									
Abstract	Grade									
	<ul style="list-style-type: none"> Summarizes the contents of the proposal 100-150 words in length 									
Introduction	Grade									
	<ul style="list-style-type: none"> Background and thorough literature review of previous or similar public health efforts and interventions A set of clearly stated, testable hypotheses or research questions States novel or replication of previous research/interventions Benefits to the target population(s) Effectively enables reader to anticipate the paper 									
Methods	Grade									
	<ul style="list-style-type: none"> Description of methods and theory used Supports hypotheses/problem statement Sample description (if necessary) Research design description: <ul style="list-style-type: none"> Type of study or experiment and modes of data collection Conceptual and operational definitions of variables (independent, dependent, and control variables), both measured and manipulated Procedures Analyses Significance and assessment of evidence presented 									

Capstone Paper Rubric: Research Proposal Option

Student Name:		Date:								
Reviewer Name:										
Element	Description	Well Above Expectations 4.0	At Expectation Levels 3.5	Below Expectations 3.0	Failing					
		Expectations detailed in D2L course/ILE Handbook exceeded	Expectations detailed in D2L course/ILE Handbook met	Expectations detailed in D2L course/ILE Handbook not fully met	Expected elements detailed in D2L course/ILE Handbook not included					Missing completely
					2.5	2.0	1.5	1.0	0.5	0.0
Significance of Research	Grade									
	<ul style="list-style-type: none"> ● Scholarly merit ● Broader impact 									
References and Bibliography	Grade									
	<ul style="list-style-type: none"> ● Formal bibliography ● Thorough references including <i>at least</i> six scholarly sources ● Appropriate citations and use of quotations in the body of the paper ● APA format used 									
Overall Paper Presentation	Grade									
	<ul style="list-style-type: none"> ● Effective organization of evidence ● Reader can easily follow ● Basic mastery of written English: grammar, syntax, word usage, etc. ● Tables, figures, and appendices as needed. 									
Overall Comments:										

Program Proposal Option Rubric

Capstone Paper Rubric: Program Proposal Option										
Student Name:		Date:								
Reviewer Name:										
Element	Description	Well Above Expectations 4.0 Expectations detailed in D2L course/ILE Handbook exceeded	At Expectation Levels 3.5 Expectations detailed in D2L course/ILE Handbook met	Below Expectations 3.0 Expectations detailed in D2L course/ILE Handbook not fully met	Failing					
					Expected elements detailed in D2L course/ILE Handbook not included					Missing completely
					2.5	2.0	1.5	1.0	0.5	0.0
FINAL PAPER EVALUATION	<ul style="list-style-type: none"> Paper can be read and understood by any public health professional Synthesizes academics and is practice appropriate for use in a professional setting Topic significant to public health Paper written in 3rd person Paper written in APA format 12-18 pages, double-spaced (not including refs), 12-point font 									
Title	Grade									
	<ul style="list-style-type: none"> A descriptive title that includes reference to the public health problem, target population and program/intervention 									
Abstract	Grade									
	<ul style="list-style-type: none"> Summarizes the proposal contents Describes the health problem and proposed public health program/intervention Explains why the program is appropriate and why it will be successful 100-150 words in length 									
Introduction	Grade									
	<ul style="list-style-type: none"> Overview of the paper that introduces the health problem (problem statement) and the importance of the proposed program/intervention Background and thorough literature review of previous or similar public health efforts and interventions including any limitations Discusses replication of previous or novel research/interventions Benefit to the target population(s) Effectively enables reader to anticipate the paper 									

Capstone Paper Rubric: Program Proposal Option

Student Name:		Date:						
Reviewer Name:								
Element	Description	Well Above Expectations 4.0	At Expectation Levels 3.5	Below Expectations 3.0	Failing			
		Expectations detailed in D2L course/ILE Handbook exceeded	Expectations detailed in D2L course/ILE Handbook met	Expectations detailed in D2L course/ILE Handbook not fully met	Expected elements detailed in D2L course/ILE Handbook not included			Missing completely
					2.5	2.0	1.5	1.0
Methods	Grade							
	<ul style="list-style-type: none"> ● Description of the target population ● Description of program/intervention proposal with objectives ● Supports the problem statement ● Explanation of need as it relates to the target population(s) ● Justification for choice of program/intervention ● Design factors (e.g., cultural, political, socio-economics, etc.) ● Resource requirements (e.g., staffing, supplies, budget) ● Timeframe ● Metrics for success and measurement methods 							
Conclusions	Grade							
	<ul style="list-style-type: none"> ● Succinct and precise conclusions ● Demonstrates synthesis and analysis based on all elements of paper ● Assessment of the likelihood of success of program/intervention based upon research of similar existing projects in the field ● Limitations ● Potential for replication and scalability to other target populations 							
References and Bibliography	Grade							
	<ul style="list-style-type: none"> ● Formal bibliography ● Thorough references including <i>at least</i> six scholarly sources ● Appropriate use of in-text citations ● APA format used 							
Overall Paper Presentation	Grade							
	<ul style="list-style-type: none"> ● Effective organization of evidence ● Reader can easily follow ● Basic mastery of written English: grammar, syntax, word usage, etc. ● Tables, figures, and appendices as needed 							
Overall Comments:								