Purpose
An Integrative Learning Experience (ILE) demonstrates synthesis of two foundational and two major competencies where the student produces a high-quality written product that is appropriate for their educational and professional goals. A list of MPH foundational and MPH major-specific competencies is provided at the end of this document.

MPH students can satisfy the ILE by completing one of the following three options:
- an approved capstone course for their major
- an independent ILE:
  - an independent ILE with a faculty member
  - a traditional academic thesis

<table>
<thead>
<tr>
<th>MPH Academic Major</th>
<th>Capstone Course</th>
<th>Independent ILE</th>
<th>Traditional Academic Thesis</th>
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<tbody>
<tr>
<td>Biostatistics</td>
<td>Not available</td>
<td>PHM 1996</td>
<td>PHM 9998</td>
</tr>
<tr>
<td>Community Health Practice</td>
<td>PHM 3996L</td>
<td>PHM 9998</td>
<td>PHM 9998</td>
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<tr>
<td>Environmental Science</td>
<td>PHWM 2496</td>
<td>PHM 9998</td>
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<tr>
<td>Epidemiology</td>
<td>PHWM 2996</td>
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<tr>
<td>Health Promotion/Health Education</td>
<td>PHM 1496</td>
<td>PHM 9998</td>
<td>PHM 9998</td>
</tr>
<tr>
<td>Health Promotion/Health Education, Dietetic Internship</td>
<td>PHM 1496 – sections 800/850</td>
<td>PHM 9998</td>
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<tr>
<td>Health Services Organization</td>
<td>PHM 3996L</td>
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<tr>
<td>Healthcare Management</td>
<td>PHM 3996L</td>
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</tr>
<tr>
<td>Customized (General Public Health and Dual-Degree Students)</td>
<td>PHM 5096</td>
<td>PHM 9998</td>
<td>PHM 9998</td>
</tr>
</tbody>
</table>
**Capstone Course Option**

*Estimated Duration: 1 semester*

**Enrollment and Completion Requirements**
1. Students should register for the appropriate capstone course for their major.
2. Students must have met the following general prerequisites:
   a. Completed the MPH core courses
   b. Completed at least 30 semester credit hours the semester before enrolling in a capstone course
   c. Completed or concurrent enrollment in Practicum (PH 9997)
3. Students should meet all course-specific prerequisites before enrolling in a capstone course. Prerequisites for each departmental capstone course are listed in the table below.
4. Students should work with their departmental or campus coordinator to determine capstone course availability; courses may not be available each semester.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Available to:</th>
<th>Course-Specific Prerequisites</th>
<th>Competencies</th>
</tr>
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<tr>
<td>PHM 1496 800/850</td>
<td>MPH Health Promotion/Health Education, Dietetic Internship students</td>
<td>Must be a dietetic intern</td>
<td>Students must complete the Independent ILE Approval and Completion Forms to indicate competencies synthetized (see more information here).</td>
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<tr>
<td>PHWM 2496</td>
<td>MPH Environmental Health students Customized students*</td>
<td>Completion of or concurrent enrollment in PH 2175L and PHM 2135L</td>
<td>MPH Foundational Competencies: MPH-1, MPH-19 MPH Environmental Health Competencies: MPH-O1, MPH-O2</td>
</tr>
<tr>
<td>PHWM 2996</td>
<td>MPH Epidemiology students Customized students*</td>
<td>Completed: PH 2615L</td>
<td>MPH Foundational Competencies: MPH-1, MPH-19 MPH Epidemiology Competencies: MPH-E3, MPH-E2</td>
</tr>
<tr>
<td>PHM 3996L</td>
<td>MPH Community Health Practice students Customized students*</td>
<td>None</td>
<td>MPH Foundational Competencies: MPH-3, MPH-4, MPH-22 MPH Community Health Practice Competencies: MPH-C1, MPH-C5</td>
</tr>
<tr>
<td>PHM 5096</td>
<td>MPH Health Services Organizations students Customized students*</td>
<td>None</td>
<td>MPH Foundational Competencies: MPH-3, MPH-4, MPH-22 MPH Health Services Organizations: MPH-S3, MPH-S4</td>
</tr>
<tr>
<td></td>
<td>Varies by campus and course offering</td>
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<td>Varies by course</td>
</tr>
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</table>

*Customized students may enroll in department-specific capstone courses if the competencies from their selected Advanced Public Health Coursework align with those taught in the course.
Independent ILE Option

Estimated Duration: 1 semester; students should begin planning the semester before they enroll

Enrollment and Completion Requirements

1. Students will identify a faculty member to collaborate with; this is commonly a faculty advisor. Students will enroll for the faculty member’s section of the course and the faculty will provide a permission number to the student for enrollment.
2. Students should register for the appropriate ILE course for their major.
3. Students should register for 3 credit hours as required by the MPH degree. Any credit hours over the maximum 3 credit hours will not be applied to a MPH degree, even in the form of elective credits.
4. Students need to complete the MPH Independent Integrative Learning Experience Approval Form with their faculty member and submit it to the Office of Academic Affairs and Student Services before the first day of classes for the semester they plan to enroll. This form identifies the MPH competencies that will be met and the type of written product that will be produced. Additional information about written products can be found below. MPH Biostatistics students will select MS Biostatistics competencies when completing an independent ILE.
5. Students will submit the MPH Independent Integrative Learning Experience Statement of Completion Form with a copy of their written product to the Office of Academic Affairs and Student Services before the last day of classes.

Note: Students are encouraged to complete their ILE in one semester, therefore it is strongly recommended to begin discussions with their advisor or identified faculty the semester prior to enrollment. If students enroll in PHM 9998 over multiple semesters and switch their faculty mentor will be required to complete a new MPH Independent Integrative Learning Experience Approval Form.

The first and last day of classes is included on the Registrar’s Academic Calendar.

Written Products

Students and faculty will collaborate on a mutually agreed upon written product that meets two MPH foundational competencies and two major competencies. This may include extending an assignment from an existing elective course or independent study, or complete a practice-based project or report with a community organization. A written product can be, but is not limited to, the list below:

- Analysis of secondary data within a specific scope
- Apply evidence-based management practices to make recommendations to an organization facing a healthcare problem
- Case study analysis
- Community health improvement project proposal
- Design a communication strategy for a specific approach (intervention)
- Detailed design document for an intervention product, including plan for pilot testing and implementation
- Evaluation of a program
- Grant proposal
- Legislative testimony with accompanying and supporting research
- Literature review (e.g., annotated bibliography)
- Manual of procedures for implementing an evaluation plan (including survey instruments, flow chart of data collection activities, etc.).
- Policy brief with supporting documentation
- Poster presentation
- Statistical analysis
- Systematic review
- Training manual
- Take home comprehensive exam

*Written products cannot be a rewrite of an assignment that has been previously completed for a course.
Traditional Academic Thesis Option

Estimated Duration: 2-3 semesters; students should submit their proposal the semester before they enroll in thesis

Enrollment and Completion Requirements
1. Students will identify a faculty member to collaborate with; this is commonly a faculty advisor. Students will enroll for the faculty member’s section of PHM 9998 and the faculty will provide a permission number to the student for enrollment.

2. Students need to complete the MPH Independent Integrative Learning Experience Approval Form with their faculty member and submit it to the Office of Academic Affairs and Student Services before the first day of classes for the semester they plan to enroll. This form identifies the MPH competencies that will be met and the type of written product that will be produced. **MPH Biostatistics students will select MS Biostatistics competencies when completing an independent ILE.**
   a. Students should indicate ‘thesis’ as their planned final product on the MPH Independent Integrative Learning Experience Approval Form.
   b. Students are not required to submit a new MPH Independent Integrative Learning Experience Approval Form after the initial semester they enroll in PHM 9998.

3. Students completing a traditional academic thesis must also adhere to all Student Research Requirements.
4. Students will submit the MPH Independent Integrative Learning Experience Statement of Completion Form with a copy of their final written thesis to the Office of Academic Affairs and Student Services by April 15th for a spring enrollment, August 1st for a summer enrollment, or December 1st for a fall enrollment.

Note: Students complete a thesis over multiple semesters; students must register for PHM 9998 each semester they are actively working on their thesis. However, a maximum of 3 credit hours can be applied to an MPH degree. Any credits over the maximum will not be applied to their degree, even in the form of elective credits.

The first day of classes is included on the Registrar’s Academic Calendar.
MPH Foundational Competencies

MPH-1: Apply epidemiological methods to the breadth of settings and situations in public health practice
MPH-2: Select quantitative and qualitative data collection methods appropriate for a given public health context
MPH-3: Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
MPH-4: Interpret results of data analysis for public health research, policy or practice
MPH-5: Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings
MPH-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
MPH-7: Assess population needs, assets and capacities that affect communities’ health
MPH-8: Apply awareness of cultural values and practices to the design or implementation of public health policies or programs
MPH-9: Design a population-based policy, program, project or intervention
MPH-10: Explain basic principles and tools of budget and resource management
MPH-11: Select methods to evaluate public health programs
MPH-12: Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence
MPH-13: Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
MPH-14: Advocate for political, social or economic policies and programs that will improve health in diverse populations
MPH-15: Evaluate policies for their impact on public health and health equity
MPH-16: Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making
MPH-17: Apply negotiation and mediation skills to address organizational or community challenges
MPH-18: Select communication strategies for different audiences and sectors
MPH-19: Communicate audience-appropriate public health content, both in writing and through oral presentation
MPH-20: Describe the importance of cultural competence in communicating public health content
MPH-21: Perform effectively on interprofessional teams
MPH-22: Apply systems thinking tools to a public health issue

Biostatistics Competencies:
MS-B1. Use appropriate statistical methods and models to analyze data from the public health, biomedical, or bioinformatics arena.
MS-B2. Demonstrate the correct use of probability distributions and theory of statistical inference within biostatistics and public health.
MS-B3. Outline a statistical analysis strategy to appropriately answer a research question.
MS-B4. Use multiple statistical software packages to analyze data to answer public health research questions.

Environmental Health Competencies:
MPH-O1. Conduct a risk characterization of an environmental hazard.
MPH-O2. Critically evaluate information and data in the peer-reviewed literature related to environmental health sciences, considering the quality and suitability of literature and data.
MPH-O3. Describe regulatory programs, including effectiveness, in the context of legislative authorities that deal with environmental health issues at the local, state, federal, or international levels.
MPH-O4. Evaluate the function, structure and financing of environmental programs.
MPH-O5. Demonstrate effective risk communication that incorporates the principles of risk perception.

Epidemiology Competencies:
MPH-E1. Apply data collection and data management skills for an epidemiologic study.
MPH-E2. Demonstrate the application of epidemiology for informing etiologic research, public health surveillance, or screening programs.
MPH-E3. Evaluate a public health problem in terms of magnitude, person, place and time, and exposure-outcome relationships.
MPH-E4. Apply basic ethical principles pertaining to the collection and management of epidemiologic information.
MPH-E5. Appropriately interpret measures of disease frequency and association, taking into account the impact of bias and error on results and conclusions.
Health Promotion and Behavioral Sciences

Health Promotion/Health Education Competencies:
  MPH-H1. Conduct a needs assessment in partnership with stakeholders to address a public health issue.
  MPH-H2. Explain how social or behavioral sciences theories are operationalized in health promotion interventions.
  MPH-H3. Apply a systematic planning framework to plan a theory and evidence-based health promotion intervention.
  MPH-H4. Apply a systematic planning framework to plan the adoption and implementation of a health promotion intervention.
  MPH-H5 Describe a plan to evaluate a health promotion intervention.

Health Promotion/Health Education– Dietetic Internship Competencies:
  MPH-DI1. Use the Evidence Analyses Process (EAP) to review a nutrition topic and develop a nutrition focused public health intervention.
  MPH-DI2. Develop a public health nutrition intervention activity based on community nutrition-related needs, assets and capacities.
  MPH-DI3. Communicate patient or client cases using professional nutrition standards.
  MPH-DI4. Demonstrate the ability to conduct nutrition-focused physical assessments.
  MPH-DI5. Implement evidence and theory based nutrition interventions.

Management, Policy and Community Health

Community Health Practice Competencies:
  MPH-C1. Compare and contrast program-planning models used by national public health organizations.
  MPH-C2. Describe the interconnectedness of governmental and non-profit systems in influencing a public health problem.
  MPH-C3. Collaborate with community-based organizations on social justice initiatives to enhance self-reflection when working with diverse communities.
  MPH-C4. Examine the role of leadership in public health practice.
  MPH-C5. Describe the mechanisms and pathways through which economic or social determinants affect health and how these determinants are measured at individual or societal levels.

Healthcare Management Competencies:
  MPH-M1. (TL) Team Leadership: Collaborates with others to complete team-based assignments within healthcare organizations, adapting when needed to maximize organizational and personal success.
  MPH-M3. (AT) Analytical Thinking: Evaluates and analyzes quality, safety and financial performance measures to support managerial decision making in healthcare organizations.
  MPH-M4. (EP) Ethics & Professionalism: Synthesizes knowledge and skills needed to excel professionally with high ethical standards and uses these skills while making a meaningful contribution to the field.
  MPH-M5. (OM) Organizational Management: Selects, integrates and evaluates organizational resources to provide high-quality, customer-oriented health services responsive to the ever-changing political landscape.

Health Services Organization Competencies:
  MPH-S1. Demonstrate understanding of microeconomic theory in a market system and how to apply those concepts to understand the economics of the healthcare system and market failure in the US.
  MPH-S2. Review and critically evaluate scientific studies that estimate the effectiveness, efficiency, and equity of health policy alternatives.
  MPH-S3. Prepare a detailed policy analysis plan to assess alternative policies for improving the effectiveness, efficiency and equity of health services.
  MPH-S4. Describe the internal and external validity strengths and limitations of health policy evaluations and the degree to which results are useful to decision-makers.
  MPH-S5. Critically evaluate peer-reviewed published manuscripts in the area of health economics or health services research to identify potential study questions.