MASTER OF PUBLIC HEALTH
INTEGRATED LEARNING EXPERIENCE
(CAPSTONE COURSE or RESEARCH PROJECT)

RICHARD M. FAIRBANKS
SCHOOL OF PUBLIC HEALTH

IUPUI

INDIANA UNIVERSITY
Indianapolis

The Integrated Learning Experience (ILE)

All MPH students are required to complete an integrated learning experience in which they will have the opportunity to synthesize and apply skills and knowledge they have learned throughout the MPH program. This will either take the form of a research project or a capstone course. Students should reference their concentration's section below to learn more about their options.

MPH students complete an integrative learning experience (ILE) that demonstrates synthesis of foundational and concentration competencies. Students in consultation with faculty select foundational and concentration-specific competencies appropriate to the student's educational and professional goals.

FINAL ILE CONCENTRATION OPTIONS

Concentration	ILE Capstone Course	ILE Research Project
Biostatistics	N/A	PHBL-B701
Environmental Health Science	N/A	PBHL-A703
Epidemiology	PBHL-E711 and E-712 (2 semester sequence)	PBHL-E704
Health Policy and Management	PBHL-H711	PBHL-H705*
Social and Behavioral Science	PBHL-S662 and S665 (2 semester sequence)	PBHL-S702**
Public Health Informatics	N/A	PBHL-E706

*HPM students who are interested in pursuing a PhD or other research-oriented track, they may meet with their Faculty Advisor to request to complete an ILE Research Project in place of the ILE Capstone Course.

**SBS students who are interested in pursuing a PhD or other research-oriented track are encouraged to take this course as an elective in addition to the required ILE courses PBHL S662 and S665 (2 semester sequence). Work as a research assistantship would not be appropriate for the S702 option.

THE ILE CAPSTONE COURSE OPTION

Students planning to enroll in a Capstone course (including the two-semester sequence courses) must complete at least 200 hours of their MPH Applied Practice Experience (internship) before they will be granted authorization to register for the Capstone course.

When 200 hours have been reached, students must fill out the **200 Hours Completed Form** online. Upon receipt of this form, the Office of Student Services will provide authorization to enroll in the Capstone course. If students are having difficulty registering for the Capstone course, contact Shawne Mathis (snmathis@iu.edu).

Capstone course students will participate in the MPH Poster Session event. Students will be required to present their work including a final printed poster and oral presentation during the event. A poster template will be provided in the Capstone course.

THE ILE RESEARCH PROJECT OPTION

Students completing the independent research project will work individually with their faculty advisor and preceptor to complete their research project and draft their research paper and poster. The project will require a substantial time commitment and will result in a 10 - 15 page research paper or project product and poster presentation to faculty, students and community partners during the MPH Project Poster Session.

Many students opt to do their research project with the same organization/agency and preceptor as their Applied Practice Experience (internship). Combining the experiences streamlines the requirements for the student and provides the organization with a product that is useful in their work. In this circumstance, students can begin planning the project while working on their Applied Practice Experience (internship). Students should begin developing the research question for their project at least 3 months before they plan to graduate.

Students planning to complete the ILE research project must complete at least 200 hours of their MPH Applied Practice Experience (internship) before they will be granted authorization to register for the research project course. When 200 hours have been reached, students must fill out the **200 Hours Completed Form** online. Upon receipt of this form, the Office of Student Services will provide authorization to enroll in the research project course. Students may **not** register for their Applied Practice Experience (internship) and research project course in the same semester and may **not** register for the research project course before their last semester in the program.

If a student chooses to conduct the final project where they are currently employed, research project activities must be completely separate from regular paid employment duties and must be conducted on their own time. The student must work under the guidance of a preceptor who is not their employment supervisor and not within the chain of command of their department or division.

Some students prefer to conduct their research project with a different agency and preceptor than they used for the Applied Practice Experience (internship). Although there may be benefits in terms of learning experiences, it usually lengthens the time required to complete the research project. Students who select this option should begin exploring alternative plans as soon they make this decision. The preceptor qualifications for the MPH APE should be used when determining who is the best choice for this role.

Examples of projects include research study, policy analysis, management plan, program evaluation, theoretical paper, health promotion curriculum or program plan, or grant proposal. A student must demonstrate the ability to define a problem, use appropriate methodology for understanding the problem, analyze the findings (raw data or existing data), describe the significance of these findings, and offer appropriate solutions and/or recommendations.

Research ProjectChecklist

PLAN AHEAD

☐ Students should schedule a meeting with their faculty advisor and project preceptor to discuss the proposed project and develop a timeline.
- During the meeting with the faculty advisor, the student and faculty advisor need to determine if IRB approval is required for the project. If required, IRB approval *must* be received before work on the project can begin. On the IRB application, the student's advisor is usually listed as the Principal Investigator on the project; the student's preceptor may be included as a co-investigator. Projects requiring full IRB approval can take several weeks. Approval for "exempt" projects is typically much faster. Students' whose projects require IRB approval should factor in the extra time needed to complete the process. For more information on the IRB, visit http://researchadmin.iu.edu/.

☐ Begin to draft the Research Project Proposal utilizing the proposal template. This should be done a few months prior to the semester during which the student plans to complete the research project.

OBTAIN APPROVAL AND REGISTER

☐ Once the project plan has been discussed with the faculty advisor and the proposal drafted, the student must complete the online Research Project Proposal form. The form will automatically route for signatures from the faculty advisor and preceptor.
- All signatures **MUST** be received before the student will be given authorization to enroll in the corresponding project course.

☐ After the signed proposal is processed, the student will be sent an email confirmation with the CITI modules and the specific project course section in which to enroll. **It is the student's responsibility to register for the project course.**

☐ Complete the following trainings and disclosures:
- **Collaborative Institutional Training Initiative (CITI) program modules**:
  https://research.iu.edu/training/citi/index.html
  → Once navigated to this page, users are required to CAS-authenticate and are redirected to the CITI portal for new user registration (or access to an existing account).
  - For new learners, type 'Indiana University/IU Health' when searching in the find institution box. Once Indiana University/IU Health has been selected; learners should follow all registration prompts for

successful new account creation (which includes the population of required coursework based on research track). "Social and Behavioral Researchers".

- For existing users, a learner may click the "Add a Course" button when logged into their account, which will display the IU CITI Curriculum list of questions. When a question is answered affirmatively, this course will be added to their account.

o **Research-Related Financial Interest Disclosure**: https://research.iu.edu/compliance/conflict-interest/disclosure.html
  → Complete all required modules and send the confirmation PDF.
  - Click on the last action date from the dashboard and it will bring up the disclosure and an ability to bring up a PDF/Printable version.

COMPLETE THE PROJECT

☐ A list of deadlines will be sent to all project students the first week of the semester (or upon registration).

☐ Two drafts of the written report/paper and poster will be submitted to the faculty advisor for review. If a student is unable to meet a deadline, they must work directly with their faculty advisor to request an extension. All drafts should be submitted to the faculty advisor.

☐ Upload the final versions of the research paper and poster utilizing the 'Online Student Evaluation' link by the deadline stipulated at the start of the semester.

☐ Remind the preceptor to complete their online evaluation. A link will be sent when the student evaluation has been recorded.

☐ Print the final poster in color and attend the Project Poster Session. A template can be found in the forms section of the Student Portal. The content of the poster will vary slightly depending on the scope of each student's project. The dimensions of the poster will be 30 inches wide by 42 inches tall.

RESEARCH PROJECT PRODUCTS

During the Research Project, the student will complete the course deliverables as outlined in the Project Proposal. If the project is modified after it is started, the Project Proposal **must** be updated and approved by the student's faculty advisor. The approval must be sent to the office of Career and Professional Development. If the project required IRB approval, changes **must** be submitted to the review board as well.

RESEARCH PROJECT REQUIREMENTS

There are three required products for the project. These are:

1. A research paper or project product approved by the faculty advisor, 10 – 15 pages in length
2. An abstract of the paper included in report (not more than 250 words)
3. A project poster that students will present to faculty, preceptors, and other MPH students.

Required project products may take the form of an article for publication, a grant proposal, a public health intervention program, a program evaluation, or a policy paper. These products should be outlined in the Project Proposal.

RESEARCH PAPER STRUCTURE SAMPLE
1. An abstract of no more than 250 words
   a. This brief statement should clearly address how the project or work aligns with each competency chosen in the project proposal, taking into consideration objectives, scope or summary of the project
2. Background and literature review
   a. Including theoretical framework (if applicable)
   b. Study objectives or research questions (if applicable)
   c. Rationale for the project
3. Materials and methods (if applicable)
4. Results
5. Discussion

a. Study limitations
b. Internal and external validity
6. Conclusion and future directions
   a. Public health practice implications
   b. Future research and/or program recommendations, and/or policy recommendations
7. References
8. Appendices, including all data collection instruments (if applicable)

POSTER GUIDELINES FOR CAPSTONE COURSE AND RESEARCH PROJECT

A template can be found in the Student Portal under Forms. The content of the poster will vary slightly depending on the scope of each student's project. The dimensions of the poster will be 30 inches wide by 42 inches tall.

Title: (1-2 lines)
- Letters should be at least 1 inch high
- Title should convey the issue
- Make it catchy in order to grab attention

List of Authors: Under the title, include the following names:
- Student name, credentials held, plus "MPH Student"
- The preceptor's name and credentials
- The faculty advisor's name and credentials (if a student is obtaining dual-concentrations, indicate the faculty advisors in both concentrations)

Abstract:
- Describe the aim of the project
- Brief synopsis of the project

Introduction:
- Why is this important?
- Provide background information and definitions
- Place the issue in the context of published, primary literature
- Provide description and justification of project

Materials and Methods:
- Briefly describe what the work done
- Use figures, flow charts and tables to illustrate steps, if possible

Results:
- Highlight the impact of the project
- Explain how the impact should or could be evaluated over time
- Use charts, images, figures, photos

Conclusions:
- Remind the reader of the aim of the project
- State whether the aim was achieved
- Compare what was done to what was in the literature

Literature cited (optional-check with the faculty advisor):
- List references and journal articles used

Acknowledgments: (about 40 words)
- Thank individuals for their contributions to project

POSTER SESSION EVALUATION RUBRIC

Description of rationale and objectives (10 points)
The introduction should accurately and concisely discuss background information and rationale for the project or study. The problem should be stately clearly and contextualized with regard to current information. The objectives of the project or study must be discussed. The following criteria will be applied:

- Adequate background information
- Clear and concise statement of the problem
- Establishment of strong rationale for the project or study
- Literature review
- Objectives of the project or study

Description of methods (10 points)
The methodology will be presented with technical exactitude and provide the following information:

- Clear and precise explanation of the methods
- Appropriate methods for addressing the project or study

Description of results (10 points)
Results, or expected results, should be explained and interpreted. The following criteria should be met:

- Adequate and convincing summary of results
- Appropriate quantitative or qualitative units used to interpret results
- Appropriate and well-defended procedure for addressing the problem
- Valid interpretation of findings

Discussion/ Implication of results (10 points)
This section should explain the significance of the results. Students should describe the benefits to the project or study, the limitations/constraints of the methods, and future improvements or recommendations. The following criteria are looked for:

- Explains how the conclusions emerge logically from the results
- Implications of the project or research with regard to current knowledge
- Comparison of results to other projects or studies
- Explanation of critical limitations / constraints of methods or approach
- Future improvements or recommendations

Organization and appearance of poster (20 points)
The quality of the poster with regard to formatting, graphics materials and information presentation is assessed as follows:

- Title is prominent and is legible from approximately 10 feet away
- All authors and affiliations are listed
- Abstract effectively highlights the poster's subject matter
- The format of the poster has a natural and obvious organization that flows easily
- Tables, figures and graphics are clear and correlate with other components of the poster
- Titles and labels are appropriately applied, captions are provided
- Acknowledgements and funding attributions are listed (if applicable)
- Materials used are professional and clear
- Spelling and grammar are correct throughout the poster

Student's oral description and explanation of the project (20 points)
- The student is able to articulate the competencies attained through the ILE
- The student clearly explains the rationale for the project or study
- The student's explanations of each sub-section are accurate
- Student speaks clearly and articulately, and presents information with confidence
- Student integrates knowledge from multiple public health disciplines and explains how project fits in the broader context of public health.

Student's ability to answer questions and provide clarity (20 points)
The ability of the student to explain the study and field questions from the judges is assessed. The following criteria are applied:

- The student is able to answer questions thoroughly and correctly
- The student is able to elaborate on various aspects of the project when/if asked for clarification

POSTER PRINTING

Multimedia Production Center [MPC] – IUPUI Campus Center, Suite 380   Phone: (317) 274-3429
The MPC is often able to print posters for half the cost of off campus retailers. However, the turnaround time on the projects may not be as fast.

PRESENTING THE POSTER

Students are required to present their Research Project in poster format to the FSPH faculty before they graduate. Poster presentation sessions are held at the end of the spring, summer and fall semesters. Preceptors, other MPH students, family members and friends are also welcome to attend the poster presentation sessions.

TIPS AND WHAT TO EXPECT:

- As the author of the poster, the student should be attentive and self-confident throughout the entire session. Wear comfortable shoes, as students will be standing by their poster for approximately two hours.
- During the poster session, faculty, staff, students, alumni and community representatives will walk around the room at their own pace to see the posters.
- Let the guests have an opportunity to review the poster at their own discretion and pace. Be well-prepared talk openly about the project and be ready to answer questions as they arise.
- When the faculty who are evaluating the poster approach, students should begin with personal introductions and a clear statement (25 words or less) about the purpose of the project. Then deliver a concise synopsis of the supporting information, pausing periodically to allow faculty to ask questions about the *introduction, relevant literature, methods, outcome/results* and *discussion/conclusions.*
- Students might be asked the same questions over and over again, so be prepared to explain things repeatedly. While this will feel redundant, each reviewer is hearing it for the first time.
- Refrain from using specialized terms and acronyms, as some of the reviewers will come from different disciplines.
- Pay attention to everyone who is standing at the poster and make eye contact with all reviewers as much as possible.

FINAL PROJECT GRADES:
Students receive a letter grade (A-F) for the Final Project. The grade is based on the project paper, the poster, and oral presentation. Please see individual concentration's syllabi for details on the grading schema. The paper and products are graded by the student's faculty advisor with input from the preceptor's evaluation.

CONTINUOUS ENROLLMENT

If a student's Final Project extends beyond the semester in which he or she registered for the course, the student is required to maintain continuous enrollment by registering for one hour, if they are not enrolled in any other courses.

QUICK REFERENCE

MPH ILE Proposal Template

MPH ILE Proposal Form

200 Hours Form

Questions?

Amelia Hurt, Director of Career and Professional Development IU
Richard M. Fairbanks School of Public Health
amehurt@iu.edu