THE OHIO STATE UNIVERSITY
COLLEGE OF PUBLIC HEALTH

DIVISION OF EPIDEMIOLOGY
Integrative Learning Experience Instructions and Guidelines
Academic Year 2026-2027

ILE Summary

The purpose of the Integrative Learning Experience (ILE) is to learn how to develop a research project, establish a worthwhile and feasible research question, understand whether and what type of Institutional Review Board (IRB) review is required for research involving human subjects, conduct a quantitative analysis, understand the elements of a manuscript and the purpose of each element, and write a research paper. Students may not write a systematic literature review or a meta-analysis for their ILE.

The ILE is completed during the final two semesters in the program. Students take a course (the ILE Seminar in Epidemiology (PUBHEPI 7998)) during the autumn of their graduating year to guide them through the process of developing their ILE. By the end of the autumn semester, students will have chosen a topic, identified data, submitted applications to the IRB if needed, chosen a research question in consultation with their advisor, be matched with a second reader, completed a literature review pertaining to their research question, and described their planned analysis. During spring semester, students will complete data analysis, write a full document, and make a presentation to their advisor and second reader. The second reader must have category M or P Graduate Faculty status at Ohio State University. The second reader does **not** need to hold a primary appointment in the College of Public Health.

Students must obtain approval from their advisor for their topic during the semester they are enrolled in the ILE course by creating a written proposal; instructions about the proposal are detailed below. Students may work in groups of two or three to complete their ILE so that they can learn about the data source and work on coding together. It always helps to brainstorm with others! Students are strongly encouraged to form pairs/groups with students who share the same advisor. The purpose of working in groups is to provide peer support and feedback at each step needed to successfully complete the ILE. Please note that each student is responsible for individually submitting components of the ILE (*e.g.,* research question, literature review, data analysis plan, ILE proposal, ILE paper, ILE presentation, etc.). That is, the work you submit must be your own work, which will be graded individually. For students using the same dataset, study design and data collection methods must be described in your own words with appropriate citation of the primary source. Any instances of students sharing substantive text in their ILE report will be treated as plagiarism and addressed accordingly. Specific requests related to establishing groups will be managed on a case-by-case basis.

Students must submit their graduation applications no later than the last day of classes during the term prior to the term in which they intend to graduate. For many students, this means they will submit their graduation application during the autumn of their graduating year. The application is on-line, and available at https://gradforms.osu.edu. Please note: the application is valid for that term only.

Preparing for the ILE (Autumn semester)

During the autumn semester, students will be enrolled in the ILE Seminar in Epidemiology, where they will learn about the ILE in general, develop all the parts of the ILE proposal, request IRB approval (if needed), and write a literature review. They will collaborate with their advisor to identify data, identify a study question, discuss analysis methods, and develop a proposal before the end of the semester.

ILE Proposal. The ILE proposal/project description includes the following elements:

1. Draft title
2. Description of the broad objective or purpose of the project, and statement of specific research question and hypothesis, or the goal and objectives for the study.

3. Describe the public health need or research gap that the proposed project addresses.
4. Describe the source of the data that you will analyze to address the study question; or, if you will collect data for the project, describe your data collection plans. Describe the agency or organization that will provide the data to you, or if you will use an existing source of data, indicate whether the data are publicly available or if you will need to request access to the data. If applicable, request a letter of support from the agency/organization and include a copy with your proposal.
5. Describe the variables (measures) you will use to address the research questions.
6. Describe how you will analyze the data. For example, you might describe what frequencies you will you examine and/or what comparisons you will make. What statistical tests will you use? What associations will you examine? Do you have sufficient training in the analytic methods your analyses will require? If not, describe how you will acquire this training.

Timeline for IRB approval. If human subjects approval is required for your research, you will need to have your proposal submitted early in the autumn for review by the OSU Institutional Review Board, so that you will have approval before you begin any data collection or analysis.

Literature Review. A literature review is a synthesis of what researchers/scholars have written about a topic, organized according to a guiding concept. Plan to meet with a librarian who can guide you in searching (https://hslguides.osu.edu/public_health). The purpose of a literature review is not to list as many articles as possible, but rather to demonstrate your ability to recognize relevant information, to synthesize the information and evaluate it according to the guiding concept that you have identified for your project. The literature review should include relevant epidemiological information about the target population, critiques of methods, and any gaps in the literature that you have identified. The literature review will be about 10 pages in length and cite at least 20 articles.

Writing the ILE paper (Spring semester)

In the Epidemiology Division, the ILE paper structure should follow the structure of a publishable manuscript, with Abstract, Introduction, Methods, Results, and Discussion. This manuscript format is followed by an Appendix with a Literature Review. The intention of this format is to provide you with the opportunity to convert the project to a publishable manuscript more easily.

Abstract. An abstract is a summary of approximately 250 words. Identify the structure of the abstract for your target journal. You can generally plan on 4 sections (background, methods, results, conclusion). In the abstract, highlight the main findings, and set up the story of the paper. Give only those methods and results that really matter.

Introduction. Typically, this is 2-3 pages. Paragraph 1 is a "global" introduction. Put the topic you're studying into the public health context. Why is it important? Paragraph 2 is a specific introduction. What's known (briefly) about the specific question that you are about to address? Paragraph 3 is an overview of your aims or hypothesis. Use the intro to begin telling the story. The introduction should state the rationale for the project. What is the basic study question and why is it of interest? Set the reader up for the main messages that you want them to remember – and there should be only one or two messages.

Methods. Basic components include: Study setting; Study design; Study population; Data collection and procedures; Key variables (how were those measured); Data analyses. If human subjects research approval was needed for the study, note that here. If IRB approval was not needed, explain why.

Results. Try to figure out the most important information that you want to convey: tell the story. You are never able to include all the results you have generated. It is your job to figure out what is important and what you want the reader to take away. A reader will almost always leave with one or two pieces of information – that's it. The rest of the writing supports a reader to know whether it is worth remembering those one or two points.

The findings should be presented in this section. The order of the results follows the order that is in the methods (descriptive before analytic). You should provide descriptive statistics about the study population, and also describe the who is included in your analysis if different. The bulk of the information will be presented in tables and figures. The text is used to highlight the information in the tables/figures and to supplement that information. All tables and figures should be referred to within the text. If a table or a figure is used from another source, there needs to be a reference citation. Discuss with your advisor if they prefer the tables and figures be placed within the text or at the end; larger tables and figures may be included in an appendix. Figures and tables must be numbered and be accompanied by descriptions that allow the reader to understand their content without referring to the text.

Discussion. The primary purposes of the discussion are to: convey the importance of your work; relate your findings to previous work identified in your literature review; identify the limitations of your work; identify the effect of the limitations on your work; put your work into the larger context of the research. A key part of the discussion is to relate your findings to the public health importance of the research. Implications of the findings for the agency/organization should be included, if applicable, and how the findings may impact policy, if applicable. Recommendations for use of the findings and for future research should also be presented in this section.

Literature Review (as Appendix). Described above. You will revise the Literature Review during the spring semester as the specific focus of your ILE paper becomes more clear.

Appendices. Anything not included in the text of the project report that is important for the understanding of the design, implementation, or conclusions of the project should be attached as an appendix. For example: instruments, consent forms, timeline, etc. All appendices must have references within the text of the project report and must be included as part of the table of contents. All appendices must be labeled alphabetically.

References. All literature and personal communications cited in the paper must be listed in the reference section. References should follow a consistent and standard citation format (e.g., Vancouver). Include citations to the peer-reviewed literature about the topic you are studying and the methods you have used in your analysis. Usually you will need *at least 25* references to adequately relate your findings to the literature.

Formatting

- The Title Page should include the title of the project, the student's name and degrees, the committee members' names, The Ohio State University, the month and year of the final project.
- Report should be 25-35 double-spaced pages in length, inclusive of tables, figures, literature review and references.
- For text, 12 point font should be used; however tables and footnotes may be in 11 or 10 point font.
- Page numbers should be inserted on each page except the Title Page.
- An electronic copy (Word or PDF) of the final approved paper should be provided to your advisor and second reader(s) and to the Office of Academic Programs and Student Services via their Graduation email at CPH-Graduation@osu.edu by the Graduate School deadlines to submit thesis documents.

ILE Presentation (Spring Semester)

All students are required to schedule an oral presentation, at which they will present the ILE. The student should schedule 1 hour for the presentation. Several weeks in advance, pick a day before the Graduate School deadline to for examinations that is convenient for the advisor and second reader(s).

The student may invite other people (friends, faculty, staff, or students) to attend for the first 15-20 minutes, during which time they will make a brief presentation. After the presentation, the remainder of the discussion will be closed to the public and only the student, advisor, and second reader(s) will continue the discussion. This oral presentation is the "oral component" of the Master's Examination and students must therefore follow

the rules outlined in the Graduate School Handbook, Section 6.2 (https://gradsch.osu.edu/handbook/all#6-2). Typically, the student, the advisor, and the second reader(s) will discuss the student's paper and presentation for the remaining 45 minutes.

ILE Timeline

Autumn 2026

Task	**No later than:**
Register for ILE Seminar in Epidemiology (PUBHEPI 7998)	
Identify a data source in consultation with advisor	week 3
Identify topic in consultation with advisor	week 4
Submit IRB application (if applicable)	week 5
Prepare research questions/hypotheses and discuss with advisor	week 6
Select final research question in discussion with advisor	week 7
Second reader is assigned	week 8
Draft literature review and share with advisor	week 9
Complete analytic plan in consultation with advisor	week 11
Complete proposal and share with advisor	week 12
Conduct preliminary analyses (if approved by IRB/DUA)	week 14

Spring 2027

Task	**No later than**
Schedule presentation with advisor and reader(s)	week 1
Complete analyses	week 2
Draft tables and figures and share with advisor	week 3
Draft methods section and share with advisor	week 4
Draft results section and share with advisor	week 5
Draft introduction section and share with advisor	week 6
Draft discussion section and share with advisor	week 7
Revise literature review	week 8
Finalize all sections of document and provide to advisor and second reader(s)	week 8
Make presentation	week 10
Make revisions as requested by advisor and second reader(s)	week 12
Submit final document to advisor and second reader(s) and OAPSS via CPH-Graduation@osu.edu	week 14

The advisor and second reader(s) must receive the final draft of the document at least two weeks prior to the oral presentation. The final revised document will be due to the advisor and second reader on the date all graduation materials are due in the Graduate School (will vary with each term).

You are expected to keep your advisor fully appraised of your progress. Provide them with drafts of your project write-up as it develops. The advisor may require multiple changes before the draft is ready to be presented.

The final date for completing all requirements (including the project presentation) and submitting the Master's Examination Report to the Graduate School is generally about 3-4 *weeks before* the end of the term. A specific calendar of dates is available on the Graduate School website (https://gradsch.osu.edu/graduation-calendar). If your committee fails to electronically submit the Master's Examination Report by the Graduate School deadlines, it will result in a delay of your graduation.