SPH V698: MPH Culminating Experience

Environmental Health Concentration

V698 Course Coordinator:
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PH C024

Fall 2014
Spring 2015
Monthly in fall, as scheduled in spring

Full 698 cohort meetings will convene on specified Fridays in Ballantine Hall Rm 347, 11:45 am – 1:45 p.m.

Environmental Health Concentration Cohort meetings will take place by arrangement

Office Hours by appointment

Culminating Experience Faculty by Concentration

Biostatistics – Dr. Zhongxue Chen
Behavioral, Social and Community Health – Dr. Susan Middlestadt
Environmental Health – Dr. Barbara Hocevar
Epidemiology – Dr. M. Aaron Sayegh (Culminating Experience Coordinator)
Family Health- Dr. Jonathon Beckmeyer
Physical Activity- Dr. Jeanne Johnston
Public Health Education- Dr. Susan Smith
Professional Health Education – Dr. Michael Hendryx

Prerequisite Courses

Students must be in their final years of the MPH program to enroll in the FA14 698 courses. Specifically, students must complete all core and required courses for the MPH degree by the end of the FA14 semester of the 2014-2015 academic year to register for the 698 courses. Enrollment in the Spring 698 courses requires successful completion (passing grade) of the FA14 698 courses. During their final years of the MPH program, students must enroll in the appropriate section of 698 for 1 credit for the FA14 semester and enroll in the appropriate section of 698 for 1 credit for the SP15 semester

Course Description

The culminating experience requires that students to synthesize and to integrate knowledge acquired in coursework and other learning experiences; and to apply theory and principles to situations that approximate aspects of Public Health professional practice.
Methods of Instruction, Teaching, and Learning

The Culminating Experience relies on a variety of instructional methods, including lectures, discussions, small-group work, peer-feedback, and self-reflection. The faculty members of the 698 courses will provide students with coaching and teaching in regards to the 698 assignments. Students should consult with any and/or all 698 faculty members throughout their participation in Culminating Experience courses. The 698 course Coordinator and/or concentration-specific faculty member will post readings and review materials on the 698 workspace in CANVAS and/or on the specific 698-section CANVAS website.

Learning Objectives

Students demonstrate their mastery of the body of knowledge acquired from MPH program coursework and demonstrate proficiency in the required Public Health core competencies through the application of theory and principles to situations that approximate the “real world” of Public Health practice. The assignments required of the Culminating Experience contribute to competency demonstration. By the end of the 698 courses, students should be able to demonstrate the attainment of the PH core and concentration-specific competencies through the development of concentration-specific synthesis projects and core competency portfolios.

Learning Assessment

The evaluation of student performance for the Culminating Experience course relies on 3 assignments:

1. Synthesis Project - for concentration specific competencies
2. Poster Presentation of Synthesis Project – for concentration specific competencies
3. MPH Competency Portfolio – for MPH Core competencies

Required Course Meetings

Entire MPH Culminating Experience Cohort

Students meet as the full MPH cohort and as concentration-specific cohorts during the FA14 semester of the Culminating Experience course. During the SP15 semester, students meet 2 times as the full MPH cohort: the appropriate faculty member determines the number of concentration-specific cohort meetings. The full MPH cohort meetings will convene in Ballantine Hall Room 347, 11:45 a.m. – 1:45 p.m., unless otherwise noted. The dates of the full MPH cohort meetings are:

Fall 2014
Friday, August 29, 2014
Friday, September 19, 2014
Friday, November 07, 2014

Spring 2015
Synthesis Project Poster Session- Friday, April 24, 2015: 9:00 a.m.-12:00 p.m. (location TBD)

Environmental Health Cohort meetings: To be arranged
Required Course Assignments

**Late assignments will NOT be accepted**

Fall Semester 2014:
- Synthesis Project plan (Friday, September 26, 2014)
- MPH Competency Portfolio (Friday, October 31, 2014)
- MPH Competency Portfolio: Revisions and resubmits (Friday, November 21, 2014)
- Synthesis Project introduction and initial sections (Friday December 5, 2014)

Spring Semester 2015:
- Synthesis Project (Friday, April 03, 2015)
- Synthesis Poster Presentation session (Friday, April 24, 2015)

Description of Assignments/Learning Assessments

**Synthesis Project**

Students will select a project to serve as a focal point for the synthesis of their concentration competencies. The project choice will be determined in consultation with concentration faculty. Students must receive concentration faculty approval for the synthesis project. Portions of the synthesis will be due throughout the year in order to help students plan for and remain focused on the final synthesis project.

The synthesis project is a demonstration of a student’s mastery of their concentration competencies. To complete the MPH program, environmental health students need to synthesize their understanding of the competencies and apply what they have learned to a real-life public health issue. Dr. Hocevar must approve the synthesis proposal topic.

**Synthesis Project Assignment: Environmental Health Research Project**

For this project assume that you have been hired as an environmental health specialist for a state agency in Indiana. Your task is to identify an environmental hazard of importance to people residing in Indiana, and develop a plan to assess potential exposure, health effects, and risk communication to the affected population. Consider the selection carefully, as it must allow for full analysis based on the environmental health competencies listed below.

**Environmental Health Competencies**

1. Describe the effects of major environmental and occupational agents on human health and safety.
2. Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.
3. Describe the effects of biological, chemical, and physical hazards on the human body, including the role of genetic factors, pathways and routes of exposure, fate within the body, and adverse health effects.
4. Explain the science underlying testing for the ability of chemicals to elicit adverse human health effects.
5. Identify and evaluate the relationship between exposure to environmental agents and human disease patterns using epidemiologic methods.
6. Explain the different exposure assessment techniques used to characterize environmental health impacts and the advantages and disadvantages of their use.
7. Integrate the disciplines of exposure assessment and toxicology to quantify environmental health risks as they pertain to policy setting initiatives.
8. Evaluate and develop control measures to minimize environmental health risks.
9. Describe and communicate environmental and occupational health findings to diverse communities.
**Introduction:** First, describe the issue in public health terms. Why is this a significant health issue for residents of Indiana?

At minimum, your paper should also address the questions listed in each section below.

1. **Toxicological Assessment:** What are the potential adverse health effects of exposure to this agent? What is the relationship between amount of exposure (dose) and seriousness of health effects? Use literature references or other reliable scientific sources to obtain exposure and adverse effects from animal and/or human studies to address these questions. Include epidemiological studies if available.

2. **Hazard Identification and Exposure Assessment:** How are humans exposed? What levels have been measured in humans? What levels have been measured in environmental/occupational settings in Indiana? What methods would you use to assess environmental/occupational levels of this hazard? Describe your plan to assess human exposure in your population. Include your study design.

3. **Risk Characterization:** What federal and state agencies regulate this hazard? What are the current exposure limits, reference doses, and/or cancer slope factors for this hazard? Include information on how these values were derived? What individuals might be considered uniquely sensitive to this hazard and why? Are these populations considered in the characterization of risk - if not, how would you propose to incorporate this into the assessment of risk to this hazard? What control measures would you use to reduce exposure in your population? How would you assess whether your control measures were effective (i.e. follow-up plan)?

**Remember** - This is a research endeavor. **Write professionally and substantiate your claims with credible scientific literature and sources.** The project should demonstrate your understanding of all competencies in the environmental health concentration.

**Outline for Paper**

Paper Length: 15-20 pages, double-spaced 12 point font excluding references.

Paper organization:
- Abstract (300 words describing the project, your findings and recommendations)
- Section 1: Introduction to the environmental health problem
- Section 2: Toxicological Assessment
- Section 3: Hazard Identification and Exposure Assessment
- Section 4: Risk Characterization
- Summary

**Synthesis Project Plan (Due September 26, 2014)**

Students will submit a plan for the completion of the synthesis project. The contents of the synthesis project plan will be finalized by concentration faculty for maximum application, but at minimum will contain the following:

- Project topic and focus
- Literature for consideration and review
- Plan of data gathering
- Plan of analysis
- Time line for project execution and submission
Synthesis Project- Introduction and Study Design (Due December 5, 2014)
By the end of the fall semester, students will submit the introduction, study design, and reference list (minimum of 10 primary research articles) for evaluation by concentration faculty. This will demonstrate student progress on the synthesis project and their readiness to continue as part of the V698 cohort in the spring.

Final Synthesis Project (Due April 3, 2015)

Poster Presentation Session of Synthesis Project (Due April 24, 2015)
Students will prepare and present a poster summarizing the synthesis project for review by MPH faculty on Friday, April 24, 2015. Students should be prepared to be present for the morning, with set up at 8:00 am and the poster reviews from 9am-12 pm (Location TBA). We will discuss the poster presentations and their evaluation during the spring semester. Content and evaluation of posters will be discussed in the poster session Webinar scheduled for March 28th.

Poster: Should highlight the major findings of your assessment in a form that easily conveys the information to your audience. At minimum, include in your poster:
- Introduction/Background
- Data (tables and figures)
- Assessment and remediation plan

As each project is unique, individual papers and posters may include additional content. These should be developed in consultation with EH faculty.

Poster Presentation Session of Synthesis Project (Due April 24, 2015)
Students will present posters summarizing their Synthesis Projects for review by MPH faculty and students on the morning of Friday, April 24, 2015 from 8:00 a.m. to 12:00 p.m., in Location TBA. We will discuss the preparation of the posters and their evaluations during the SP15 semester. Presentations should include project description with outcomes, competencies addressed and evidence of synthesis across concentration competencies.

Evaluation criteria of the poster include the following:
- Evidence of concentration competency
- Mastery of public health skills and knowledge
- Presentation quality

Poster: Should highlight the major findings of your assessment in a form that easily conveys the information to your audience. At minimum, include in your poster:
- Introduction/Background
- Data (tables and figures)
- Assessment and remediation plan

As each project is unique, individual papers and posters may include additional content. These should be developed in consultation with EH faculty.

MPH Competency Portfolio (Due Friday, October 31, 2014)
Throughout the MPH program, students will gather and document evidences of attainment of core MPH competencies. During the Culminating Experience, every student will submit an MPH Competency Portfolio that provides evidence of core MPH competency attainment. Details about the MPH Portfolio are the topic of discussion during the full MPH cohort meeting on Friday, September 19, 2014 and in the concentration-specific cohort meetings. Evaluation of the Portfolio relies on the student’s ability to articulate the meaning of
the competency, the selection, and explanation of a “real-world” example and describe the evidences of attainment.

Required elements include:
1. MPH Core Competencies Summary – 1 page for each of the 12 MPH competencies (maximum one page single spaced, 12 point font for each MPH Core Competency)

Course Grading

Evidence of attainment of core and concentration-specific competencies will earn students passing marks for the class. Students who have not sufficiently demonstrated mastery of core and/or concentration-specific competencies will receive incompletes (i.e. “I”). Students receiving incompletes must respond to the concentration-specific faculty member with a negotiated time to assure completion of course requirements. Per University policy, those students who do not complete the requirements within the negotiated time will fail (i.e. receive “F’s”) for the FA14 semester of the 698 course and therefore not be able to register/enroll in the SP15 698 course. Failure to complete the SP15 698 course precludes the graduation from the MPH program.

Academic Integrity

We are part of an academic community that values both personal and academic integrity. The Code of Student Rights, Responsibilities, and Conduct defines academic and personal misconduct by students in this class and specifies the procedures to deal with such situations (see http://www.iu.edu/~code/code/index.shtml). Additional information about academic integrity will be available on the course website for review. All students should review and understand the Indiana University policy and strive toward academic integrity throughout their studies. The IU SPH-Bloomington has no tolerance for violations and no warnings because, at this stage of the graduate program, students should know how to write with academic integrity. Papers submitted with evidence of plagiarism will receive a failing mark of “0” points, and Dr. Sayegh and related faculty members will proceed with the appropriate communications at university level. Students must submit all written assignments via Turnitin for originality confirmation.

Proper Citation and Referencing

Students should document ALL assignments are expected to be properly with references from the professional literature (e.g., books, journal articles, web-based documents, etc.) using the concentration approved reference style (e.g. AMA or APA). Any papers submitted without proper documentation and referencing will automatically receive an F mark of “0” points. All papers must contain proper citations within the texts as well as a properly formatted reference list. Students must submit the assignments via the CANVAS drop boxes.

Course Evaluation

The policy of the IU School of Public Health- Bloomington is to evaluate all its courses. We will conduct final student course evaluations in a manner that maintains the integrity of the process and the anonymity of evaluators.

Students with Special Needs

Any student with a special need (e.g. vision impairment, hearing impairment, dyslexia, etc.) should discuss this privately with Dr. Sayegh and the concentration-specific faculty member during the first weeks of the FA14 and SP15 semesters in order to ensure reasonable accommodations. The Office of Disability Student Services is an excellent resource. The following is the contact information for this office: Disability Services for Students, Franklin Hall Room 006, 601 East Kirkwood Ave. (812) 855-7578 www.dsa.indiana.edu
Religious Observation

In accordance with the Office of the Vice Provost for Faculty and Academic Affairs, any student who wishes to receive an excused absence from class must submit an Accommodation Request form available from the Vice Provost for Faculty and Academic Affairs for each religious observation. The student must present this form to Dr. Sayegh and the concentration-specific faculty member by the end of the second weeks of the FA14 and SP15 semesters. Dr. Sayegh and/or the concentration-specific faculty member professor must sign the form, make a copy of the form, and return the original to the student. Students may find more information about the policy on religious observation and the request form at the following website: http://www.indiana.edu/~vpfaa/holidays.shtml.

Official Calendar- Bloomington Campus

For information regarding the official Bloomington campus calendar, go to the following URL: http://registrar.indiana.edu/offcalen.shtml.