

## **PUBH 606: Design and Analysis of Public Health Interventions**

Purdue University

Distance delivery, 8-week course

3 credit hours (135 total contact hours, approximately 15-20 hours per week)

**Instructor:** Dr. Melissa Kenzig

**Preferred Pronouns:** she, her

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**Virtual Office Hours:** by appointment via [Calendly](#)

**How to contact the instructor:** via email

### **Course Description**

Design and Analysis of Public Health Interventions addresses professional competencies in design, implementation, evaluation, and diffusion of health interventions in community settings. Program planning paradigms, determinants of health behavior, and behavior change strategies will serve as a basis for analyzing these health interventions.

### **Course Objectives:**

- Understand how to identify and/or select evidence-based interventions appropriate for defined populations, settings, and health issues.
- Choose an evidence-based intervention and adapt it for a new population and/or setting.
- Understand key ethical considerations when implementing interventions for defined public health problems, populations and settings.
- Create a model to guide the evaluation of a health disparities program and/or intervention.
- Establish evaluation questions and select an appropriate evaluation design to answer health disparities questions.
- Identify strengths, limitations, and quality control issues associated with measure selection, data collection, data analysis, and data management of health disparities interventions.
- Understand the ethical and political implications of evaluation work in program design.

### **Foundational Public Health Knowledge and MPH Competencies Addressed in this Course**

Our Master of Public Health (MPH) program is accredited by the Council on Education for Public Health (CEPH). CEPH has identified 22 Foundational Competencies. These competencies are informed by the traditional public health core knowledge areas (biostatistics, epidemiology, social and behavior sciences, health services administration, and environmental health sciences), as well as cross-cutting and emerging public health areas. Listed below are the Foundational Competency expectations for students completing this course:

9. Design a population-based policy, program, project or intervention
11. Select methods to evaluate public health programs

13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
18. Select communication strategies for different audiences and sectors
19. Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation

In addition to the Foundational Competencies outlined above, this course also fulfills the following Foundational Knowledge Learning Objectives as defined by CEPH:

6. Explain the critical importance of evidence in advancing public health knowledge
9. Explain behavioral and psychological factors that affect a population's health
10. Explain the social, political, and economic determinants of health and how they contribute to population health and health inequities
12. Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health)

## Learning Resources, Technology & Texts

### Required Texts

- Bartholomew Eldredge, L. K. (2016). *Planning health promotion programs: an intervention mapping approach* (Fourth edition.). Jossey-Bass.  
[https://purdue.primo.exlibrisgroup.com/permalink/01PURDUE\\_PUWL/uc5e95/alma99170309267701081](https://purdue.primo.exlibrisgroup.com/permalink/01PURDUE_PUWL/uc5e95/alma99170309267701081)
- Issel, L.M., Wells, R., & Williams, M. (2021). *Health Program Planning and Evaluation: A Practical Systematic Approach to Community Health* (5th Edition). Burlington, MA: Jones and Bartlett Publishers.  
[https://purdue.primo.exlibrisgroup.com/permalink/01PURDUE\\_PUWL/uc5e95/alma99170287358501081](https://purdue.primo.exlibrisgroup.com/permalink/01PURDUE_PUWL/uc5e95/alma99170287358501081)

Students can access an electronic copy (for free) of the required texts on the Purdue Libraries website. There are a limited number of users who can access the electronic version provided by Purdue University at the same time. To ensure ease of access, students can download sections of the textbook for offline use or purchase their own copy. Additional readings, resources, and media will be posted on the course site.

### Course Structure

This course is organized into eight, self-paced, weekly modules. Each weekly module includes readings, assignments, discussions, and quizzes. Students are expected to complete each weekly activity as outlined in the instructions. Weeks begin on Monday (day 1) and end on Sunday (day 7). Due dates are listed as module days in each assignment.

### Assignments

Assignment Categories	% of Total Grade
Intervention Project	55

Discussions/Assignments	25
Quizzes	15
Peer Review Evaluation	5

Assignments	Due date and time	Point Value	Grade Category
<b>Week 1 Quiz</b>	Sunday, Week 1 by 11:59 PM ET	25	Quizzes
<b>Week 1 Paper: The Public Health Pyramid &amp; Health Disparities</b>	Sunday, Week 1 by 11:59 PM ET	10	Discussions /Assignments
<b>Week 2 Quiz</b>	Sunday, Week 2 by 11:59 PM ET	25	Quizzes
<b>Week 2 Intervention Project: Project Topic &amp; Team Contract</b>	Sunday, Week 2 by 11:59 PM ET	10	Intervention Project
<b>Week 2 Discussion: The Core Processes</b>	Post your Initial post by Thursday, Week 2 at 11:59 PM ET Post peer responses by Sunday, Week 2 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 3 Quiz</b>	Sunday, Week 3 by 11:59 PM ET	25	Quizzes
<b>Week 3 Discussion: Model of the Problem</b>	Post your Initial post by Thursday, Week 3 at 11:59 PM ET Post peer responses by Sunday, Week 3 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 3 Intervention Project: Community health needs assessment</b>	Sunday, Week 3 by 11:59 PM ET	10	Intervention Project
<b>Week 4 Quiz</b>	Sunday, Week 4 by 11:59 PM ET	25	Quizzes
<b>Week 4 Discussion (Perusal)</b>	Post your Initial post by Thursday, Week 4 at 11:59 PM ET Post peer responses by Sunday, Week 4 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 4 Discussion: Theory Infographic/Presentation</b>	Post your Initial post by Thursday, Week 4 at 11:59 PM ET Post peer responses by Sunday, Week 4 at 11:59 PM ET	10	Discussions /Assignments

<b>Week 5 Quiz</b>	Sunday, Week 5 by 11:59 PM ET	25	Quizzes
<b>Week 5 Discussion: Matrices of Change</b>	Post your Initial post by Thursday, Week 5 at 11:59 PM ET Post peer responses by Sunday, Week 5 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 5 Intervention Project: Mission, goals, SMART objectives, and logic model of change</b>	Sunday, Week 5 by 11:59 PM ET	10	Intervention Project
<b>Week 6 Assignment: Presenting Health Information to a Target Audience</b>	Post your initial post by Thursday, Week 6 at 11:59 PM ET Post peer responses by Sunday, Week 6 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 6 Discussion: Adapting an Evidence-Based Intervention for a New Population</b>	Post your initial post by Thursday, Week 6 at 11:59 PM ET Post peer responses by Sunday, Week 6 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 7 Quiz</b>	Sunday, Week 7 by 11:59 PM ET	25	Quizzes
<b>Week 7 Intervention Project: Program budget and needed resources</b>	Sunday, Week 7 by 11:59 PM ET	10	Intervention Project
<b>Week 7 Discussion: Creating a CHAP</b>	Post your initial post by Thursday, Week 7 at 11:59 PM ET Post peer responses by Sunday, Week 7 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 8 Discussion: Creating Evaluation Questions and Selecting Evaluation Designs</b>	Post your initial post by Thursday, Week 8 at 11:59 PM ET Post peer responses by Sunday, Week 8 at 11:59 PM ET	10	Discussions /Assignments
<b>Week 8 Intervention Project: Final Intervention Project document</b>	Sunday, Week 8 by 11:59 PM ET	100	Intervention Project
<b>Week 8 Intervention Project: Team member feedback evaluations</b>	Sunday, Week 8 by 11:59 PM ET	10	Intervention Project
<b>Week 8 Peer Review</b>	Post your Intervention Project document by Monday, Week 8 at 11:59 PM ET	10	Peer Review Evaluation

	Post the review of your peer's project by Sunday, Week 8 at 11:59 PM ET		
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### Quizzes

There are quizzes in Weeks 1, 2, 3, 4, 5, and 7. The quizzes cover the Issel, Wells, & Williams (2021) textbook readings for that week. The quizzes each have 25 true/false and multiple-choice questions. You have two attempts at each quiz and your highest score will be recorded. You have one hour to complete the quiz and must complete it in one sitting. Quizzes are due by 11:59 pm ET on Sundays of the week in which they are due. Quizzes are worth 10% of your total grade.

### Discussions/Assignments

**Week 1 Assignment: The Public Health Pyramid & Health Disparities:** Visit the Healthy People 2030 website (<https://health.gov/healthypeople>) and select one objective (click on "Browse Objectives" for the full list) that is of particular interest to you. Conduct a scholarly literature review to determine which population is affected by this issue. Describe how a program developed at each level of the public health pyramid would differ and how the considerations would differ given this particular health issue and population. Use a health disparities and health equity lens in your analysis. This assignment is worth 5% of the Discussions/Assignments portion of the grade.

**Week 2 Discussion: The Core Processes:** In this discussion, you will consider how to apply the skills associated with the Core Processes of the Intervention Mapping model to your topic for the Intervention Project. You will participate in a conversation where you pose questions to your team members, and answer the questions they pose. This discussion is worth 5% of the Discussions/Assignments portion of the grade.

**Week 3 Discussion: Model of the Problem:** In this discussion, you will develop a first draft of a model of the problem you are focused on for your Intervention Project. You will review the models of your classmates and provide feedback. This discussion is worth 10% of the Discussions/Assignments portion of the grade.

**Week 4 Discussion (Perusall):** The purpose of this discussion is to facilitate thoughtful conversations between you and your classmates as you are learning about the different topics in this class. For this discussion, you will read and discuss (in small groups) the assigned readings for the week using an interactive, online social learning platform called Perusall, which is embedded in our course. This discussion is worth 5% of the Discussions/Assignments portion of the grade.

**Week 4 Discussion: Theory Infographic/Presentation:** You will create a one-page strategic infographic on a behavioral theory assigned to you as it relates to your health topic and population. Infographics are meant to be visual expressions of complex information that can be quickly consumed and easily understood. You will post your Infographic along with a voice over presentation of your theory infographic to your classmates. This assignment is conducted on a discussion forum, and you will review your colleagues' Infographics and presentations and provide feedback. This discussion is worth 15% of the Discussions/Assignments portion of the grade.

**Week 5 Discussion: Matrices of Change:** In this discussion, you will determine which behavioral and environmental outcomes your intervention will focus on and develop a matrix of change related to one of them. This discussion is worth 10% of the Discussions/Assignments portion of the grade.

**Week 6 Assignment: Presenting Health Information to a Target Audience:** For this assignment, you will develop a strategy to communicate, both orally and visually, health information to a target population. You will imagine that you are creating a health communication campaign about a specific piece of health information to a priority population, as it relates to your Intervention Project. For example, if your Intervention Project is focused on reducing vaccine-preventable diseases among Native Americans, you might choose to develop a brief health education presentation and brochure about getting the flu vaccine. You must include both a print (e.g., flyer, brochure, social media post, billboard, etc.) and oral/verbal (e.g., presentation, TikTok/YouTube video, radio advertisement, etc.) component to communicate the same information to a specific population. This assignment will require a significant amount of preparation and you are encouraged to not leave it until the last minute to create (consider starting it at least the week prior). This assignment is worth 15% of the Discussions/Assignments portion of the grade.

**Week 6 Discussion: Adapting an Evidence-Based Intervention for a New Population:** In this discussion, you will find a potential option for an evidence-based intervention to include as part of your intervention plan and consider how to best adapt it to your priority population. This assignment is worth 10% of the Discussions/Assignments portion of the grade.

**Week 7 Discussion: Creating a CHAP:** A Community Health Action Plan (CHAP) is a clear, concise course of action for a program, and is an easy way to help convey to various stakeholders exactly what your program does. It articulates what needs to be done, by whom, how it will be done, by when, and what resources are needed to be successful. For this discussion, you will develop a 1-page CHAP based on one of your Intervention Project goals. You'll share your CHAP and have the chance to review and provide feedback on your classmates' CHAPs. This discussion is worth 15% of the Discussions/Assignments portion of the grade.

**Week 8 Discussion: Creating Evaluation Questions and Selecting Evaluation Designs:** For this discussion, you will select three of your group's Intervention Project objectives and craft an evaluation question and select and justify an appropriate evaluation design for each one. You will review the evaluation questions and selected evaluation designs of your colleagues and provide feedback. This assignment is worth 10% of the Discussions/Assignments portion of the grade.

### **Intervention Project**

The Intervention Project is the major, ongoing project in this course. Pieces of the project will be due during Weeks 2, 3, 5, and 7, and culminate with your final paper submission in Week 8. You will complete the Intervention Project in a group of three students. The project is designed to help you develop and practice the skills required to effectively design a behavioral intervention for a selected community using evidence and the appropriate theories. Each group is expected to meet at least once (but more meetings are welcome/encouraged) with the instructor in Week 4 or 5 to provide an update

on project progress and get feedback. Each piece of the Intervention Project is described in more depth in Brightspace. The pieces of the Intervention Project are due as follows:

- Week 2: Project Topic, Team Contract – 10%
- Week 3: Community health needs assessment and model of the problem – 10%
- Week 5: Mission, goals, SMART objectives, and logic model of the program – 10%
- Week 7: Program budget and needed resources – 10%
- Week 8: Final Intervention Project document – 40%
- Week 8: Team member feedback evaluations – 20%

### Peer-review Evaluations

Students will be placed into groups of 2-3 students to complete peer reviews of one another's Intervention Projects in Week 8 using the assignment rubric. The peer reviews will take place in a discussion forum accessible only to you and the student(s) you've been paired with to do the peer review. Exchange your Intervention Project (post it to the discussion board) by Monday of Week 8. Conduct your peer review and post it to the discussion board by Sunday of Week 8. Your instructor will use the Peer Review Instructor Rubric to score your success in evaluating your peer's final project. Your Peer Review is worth 5% of your total course grade.

### Grading Policies

#### Grading scale

Assignment of the final letter grade for the course will be calculated as follows.

A	94-100%	B-	80-83%	D+	67-69%
A-	90-93%	C+	77-79%	D	64-66%
B+	87-89%	C	74-76%	D-	60-63%
B	84-86%	C-	70-73%	F	<60%

### Course Schedule

Week	Topics	Readings	Assignments due
<b>Week 1</b>	Overview of Intervention Diversity Health Disparities	Issel, Wells, & Williams (2021): Chapters 1 & 2  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 1 Discussion: Introductions  Week 1 Paper: The Public Health Pyramid & Health Disparities  Week 1 Quiz
<b>Week 2</b>	Models for Program Planning and Evaluation	Bartholomew Eldredge (2016): Chapter 1	Week 2 Intervention Project: Project Topic, Team Contract, and Core Processes

		Issel, Wells, & Williams (2021): Chapter 3  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 2 Discussion: The Core Processes  Week 2 Quiz
<b>Week 3</b>	Defining the Health Problem through Community Health Needs Assessment  Model of the Problem	Bartholomew Eldredge (2016): Chapter 4  Issel, Wells, & Williams (2021): Chapter 4  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 3 Intervention Project: Community health needs assessment and model of the problem  Week 3 Discussion: Model of the Problem  Week 3 Quiz
<b>Week 4</b>	Health Program Development and Planning Using Theories and Models	Bartholomew Eldredge (2016): Chapters 2 & 3  Issel, Wells, & Williams (2021): Chapter 5  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 4 Discussion: Theory Infographic/Presentation  Week 4 Discussion (Perusall)  Week 4 Quiz
<b>Week 5</b>	Developing Program Mission Statements, Goals, Objectives, and Logic Model of the Program	Bartholomew Eldredge (2016): Chapter 5 & 6  Issel, Wells, & Williams (2021): Chapter 6  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 5 Intervention Project: Mission, goals, SMART objectives, and logic model of the program  Week 5 Discussion: Matrices of Change  Week 5 Quiz
<b>Week 6</b>	Program Design	Bartholomew Eldredge (2016): Chapters 7 & 10  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 6 Discussion: Presenting Health Information to a Target Audience  Week 6 Discussion: Adapting an Evidence-Based Intervention for a New Population
<b>Week 7</b>	Program Implementation	Bartholomew Eldredge (2016): Chapter 8	Week 7 Intervention Project: Program budget and needed resources



		Issel, Wells, & Williams (2021): Chapters 7 & 8  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 7 Discussion: Creating a CHAP  Week 7 Quiz
<b>Week 8</b>	Program Evaluation	Bartholomew Eldredge (2016): Chapter 9  Recommended Articles, Resources, Websites, and Videos in Brightspace	Week 8 Discussion: Creating Evaluation Questions and Selecting Evaluation Designs  Week 8 Intervention Project: Final Intervention Project document  Week 8: Team member feedback evaluations  Peer Review Evaluation

## Policies

Please closely review all of the content in the Getting Started section of Brightspace. The Class and University Policies section includes details on policies. You are expected to understand and adhere to all policies as outlined there. If you have any questions, please contact your instructor or the Student Services office immediately.

Students are expected to log in on Monday each week and should log in to the course a minimum of three times each week. It is to your advantage to be an active participant in each week of the course. Additional course information and guidance will be provided in the **Announcements** section of the course, and there is an **Ask your Instructor/Ask a Peer** discussion board provided within the course.

Relevant changes to this course will be announced on the course website and by email.

You are expected to read your @purdue.edu email on a frequent basis. Your instructor will only contact you via your Purdue email account.