

PUBH 6034

Evaluation
Spring 2019

COURSE & CONTACT INFORMATION

Credits: 3

Meeting Day(s): T, Th

Meeting Time: 9:45-11:00

Meeting Place: Mayo A110

Instructor: Traci L. Toomey, PhD

Email: toome001@umn.edu

Office Phone: 612-626-9070

Office Hours: By appointment

Office Location: 380 West Bank Office Building

Primary 6034 TA: Daniel Schriemer

Email: schri079@umn.edu

Cross-course TA: Sara Dufour

Email: dufou023@umn.edu

Office Hours: Will be announced/by appointment

COURSE DESCRIPTION

This course was designed for MPH students to provide an introduction to the concepts and tools needed to conduct assessments and evaluate interventions.

Acknowledgments

The contents of PubH 6034 have been developed with the contributions of numerous instructors. Dr. Toomey, the current instructor, has been involved with the majority of recent content and modifications. Former faculty/instructors Dr. Ben Capistrant and Dr. Simone French contributed to the development of the course. The SPH Office of E-Learning Services is also acknowledged for their help in developing the course.

COURSE PREREQUISITES

CHP, MCH or Nutr MPH student or instructor's permission.

COURSE GOALS & OBJECTIVES

Course Goal: Students will understand the basic tools and components of evaluation within the context of public health.

The syllabus is a guide for class schedule and specific objectives. Additional information and details will be given on Moodle and during class.

Course Objectives:

By the end of the semester, students will be able to:

1. Describe the importance of evaluation for public health.
2. Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.
3. Explain the different types of roles of evaluators.
4. Explain different types of evaluation.

5. Compare different options for data collection.
6. Describe ways to improve the quality of data.
7. Understand importance of involving stakeholders.
8. Understand use of and how to develop logic models.
9. Explain evaluation terms, issues, and plans to wide range of stakeholders in a way that is accessible to all.
10. Design a basic evaluation plan.
11. Describe basic management issues related to evaluation (e.g., budgets, staffing).
12. Explain strengths and limitations of different types of evaluation designs.
13. Understand how to develop an effective evaluation report.

METHODS OF INSTRUCTION AND WORK EXPECTATIONS

The class sessions will be a combination of in-class and online lectures, classroom and small group discussion/workshops, and presentations by guest lecturers. **Assigned readings and online lectures should be completed before each class.**

Attendance in class is mandatory. Students are expected to attend class and participate in class discussion. If you are unable to attend class, please contact the instructor or TA **prior to class**, by email, or by phone.

Course Workload Expectations

PubH 6034 is a 3-credit course. The University expects that for each credit, you will spend a minimum of three hours per week attending class, reading, studying, completing assignments, etc. over the course of a term to earn an average grade.

Learning Community

School of Public Health courses ask students to discuss frameworks, theory, policy, and more, often in the context of past and current events and policy debates. Many of our courses also ask students to work in teams or discussion groups. We do not come to our courses with identical backgrounds and experiences and building on what we already know about collaborating, listening, and engaging is critical to successful professional, academic, and scientific engagement with topics.

In this course, students are expected to engage with each other in respectful and thoughtful ways.

In group work, this can mean:

- Setting expectations with your groups about communication and response time during the first week of the semester (or as soon as groups are assigned) and contacting the TA or instructor if scheduling problems cannot be overcome.
- Setting clear deadlines and holding yourself and each other accountable.
- Determining the roles group members need to fulfill to successfully complete the project on time.
- Developing a rapport prior to beginning the project (what prior experience are you bringing to the project, what are your strengths as they apply to the project, what do you like to work on?)

In group discussion, this can mean:

- Respecting the identities and experiences of your classmates.
- Avoid broad statements and generalizations.
- Consider your tone and language, especially when communicating in text format, as the lack of other cues can lead to misinterpretation.

Like other work in the course, all student to student communication is covered by the Student Conduct Code (<https://z.umn.edu/studentconduct>).

COURSE TEXT & READINGS

Course readings are available on Moodle.

COURSE OUTLINE/WEEKLY SCHEDULE

(Note: Some lectures may be changed to meet course needs)

Class	Date	Topic(s)	Assigned Lecture/Reading	Quiz/Exam/Assignment Due
WEEK 1				
1	Jan 22	COURSE INTRODUCTION	REQUIRED READING: <ul style="list-style-type: none"> • None 	
2	Jan 24	LECTURE: Evaluation Overview	REQUIRED READING: <ul style="list-style-type: none"> • Framework for Program Evaluation in Public Health, <i>MMWR</i>, V. 48, No. RR-11, 1999. (ftp://ftp.cdc.gov/pub/Publications/mmwr/rr/rr4811.pdf) • CDC Self-Study Guide Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide, CDC, 2011; https://www.cdc.gov/eval/guide/cdcevalmanual.pdf, pp. 1-12 	Online Quiz 1: Reading closes at 8:00 a.m. today
WEEK 2				
3	Jan 29	LECTURE: <i>Work as an Evaluator</i> <i>Guest Instructor: Elizabeth Kruger, MPH</i>	REQUIRED READINGS: <ul style="list-style-type: none"> • CDC Self-Study Guide Different Types of Evaluators/Evaluator Roles/Working with Stakeholders. https://www.cdc.gov/eval/guide/cdcevalmanual.pdf pp13-20 • Kellogg Evaluation Handbook pp. 85-93 • JA King & L Stevahn. Chapter 4 pp. 66-95: Interactive Evaluation Practice. Sage Publications. 2013 	Online Quiz 2: Reading closes at 8:00 a.m. today

4	Jan 31	LECTURE: Overview of Types of Data	<p>REQUIRED ONLINE LECTURES:</p> <ul style="list-style-type: none"> Quantitative Data Qualitative Data <p>REQUIRED READINGS:</p> <ul style="list-style-type: none"> <i>CDC Self-Study Guide</i> https://www.cdc.gov/eval/guide/cdcevalmanual.pdf, pp 58-73 <i>Kellogg Evaluation Handbook</i>, pp. 142-164 Quinn Patton, M. <i>Essentials of utilization-focused evaluation</i>. 2012 Sage Publications, Inc. Chapters 10 (pp. 263-283). <p>RECOMMENDED READINGS:</p> <ul style="list-style-type: none"> Administration on Children, Youth & Families. (ACYF) (2016). <i>Qualitative research methods in program evaluation: Considerations for federal staff</i> https://www.acf.hhs.gov/sites/default/files/acyf/qualitative_research_methods_in_program_evaluation.pdf p. https://www.cdc.gov/healthyyouth/evaluation/pdf/brief19.pdf 	Online Quiz 3: Reading and Lecture closes at 8:00 a.m. today
WEEK 3				
5	Feb. 5	WORKSHOP: Discuss Key Concepts & Develop Protocol for Data Collection And question development	REQUIRED READING:	<ul style="list-style-type: none"> None

6	Feb 7	WORKSHOP: Collect Data, Data Collection Critique & Protocol Changes	REQUIRED READING: • None	
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WEEK 4

7	Feb 12	LECTURE: Assessment	REQUIRED READING: • Issel & Wells, 2018, pp. 71-85	Online Quiz 4: Reading closes at 8:00 a.m. today Assignment Due: Small-group Data Collection Report
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8	Feb 14	WORKSHOP: Assessment.	<p>REQUIRED READINGS:</p> <ul style="list-style-type: none"> Minnesota Statewide Health Assessment: http://www.health.state.mn.us/health/ympartnership/docs/2017MNStatewideHealthAssessment.pdf <p>REVIEW</p> <ul style="list-style-type: none"> Data from the 2017 Minnesota Statewide Health Assessment: http://www.health.state.mn.us/health/ympartnership/docs/2017MNStatewideHealthAssessmentData.pdf <p>ADDITIONAL EXAMPLES OF ASSESSMENT REPORTS</p> <ul style="list-style-type: none"> University of Minnesota Medical Center. 2015 Community Health Needs Assessment. Minneapolis, MN: University of Minnesota Medical Center https://www.fairview.org/fv/groups/internet/documents/web_content/s_127536.pdf Ramsey County Community Health Improvement Plan 2014-2018. Saint Paul, MN: Ramsey County. https://www.ramseycounty.us/sites/default/files/Departments/Public%20Health/CHIP_report_rev_june2016.pdf 	
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WEEK 5

9	Feb 19	LECTURE/WORKSHOP: Stages of Intervention Development and Implementation	ONLINE LECTURE: Basics of intervention development REQUIRED READINGS: <ul style="list-style-type: none">• Quinn Patton, M. <i>Essentials of utilization-focused evaluation</i>. 2012 Sage Publications, Inc. Chapter 9, pp 230-262.• <i>CDC Self-Study Guide Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide</i>, CDC, 2011; https://www.cdc.gov/eval/guide/cdcevalmanual.pdf, pp. 21-25	Online Quiz 5: Reading & Lecture closes at 8:00 a.m. today
10	Feb 21	LECTURE: Logic Models	REQUIRED READINGS: <ul style="list-style-type: none">• <i>Kellogg Evaluation Handbook</i> W.K. Kellogg Foundation Logic Model Development Guide. (2006) https://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide• <i>CDC Self-Study Guide Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide</i>, CDC, 2011; https://www.cdc.gov/eval/guide/cdcevalmanual.pdf, pp. 26-39• Quinn Patton, M. <i>Essentials of utilization-focused evaluation</i>. 2012 Sage Publications, Inc. (pp. 232-236).	Online Quiz 6: Reading & Lecture closes at 8:00 a.m. today

WEEK 6				
11	Feb 26	WORKSHOP: Logic Model Activities	REQUIRED READINGS : • None	
12	Feb 28	LECTURE: Formative Evaluation	REQUIRED READINGS: • http://www.tools4dev.org/wp-content/uploads/how-to-pretest-and-pilot-a-survey-questionnaire.pdf • The importance of pilot studies. Edwin R. van Teijlingen and Vanora Hundley. http://sru.soc.surrey.ac.uk/SRU35.pdf	
WEEK 7				
13	March 5	WORKSHOP: Formative Evaluation	REQUIRED READINGS : • None	
14	March 7	LECTURE: Process Evaluation	REQUIRED READINGS : • Issel & Wells, 2018, pp. 219-244 RECOMMENDED READING: • Bellg AJ et al., Enhancing treatment fidelity in health behavior change studies: Best practices and recommendations from the NIH Behavior Change Consortium. <i>Health Psychology</i> 2004; 23: 443-451.	Online Quiz 7: Reading closes at 8:00 a.m. today
WEEK 8				
15	March 12	WORKSHOP: Process Evaluation	REQUIRED READINGS : • None	

16	March 14	LECTURE: Outcome Evaluation	<p>REQUIRED READINGS:</p> <ul style="list-style-type: none"> • <i>CDC Self-Study Guide Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide</i>, CDC, 2011; https://www.cdc.gov/eval/guide/cdcevalmanual.pdf, pp. 42-55 • Issel & Wells, 2018, pp. 287-313 <p>RECOMMENDED READINGS:</p> <ul style="list-style-type: none"> • Campbell DT, Stanley, JC. Experimental and Quasi-Experimental Designs for Research on Teaching. 1963. <i>Handbook of Research on Teaching</i>. NL Gage (Ed). McNally & Company. Monograph published separately in 1966 as "Experimental and Quasi-Experimental Designs for Research". Wadsworth CENGAGE Learning. 71 pages. pages 1-50 first priority. 	Online Quiz 8: Reading closes at 8:00 a.m. today
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SPRING BREAK (MARCH 18– MARCH 22)

WEEK 9				
17	March 26	LECTURE/WORKSHOP: Outcome Evaluation #1	<p>REQUIRED READINGS :</p> <ul style="list-style-type: none"> • None 	
18	March 28	WORKSHOP: Outcome Evaluation #2	<p>REQUIRED READINGS :</p> <ul style="list-style-type: none"> • None 	
WEEK 10				
19	April 2	LECTURE/WORKSHOP: Management & Budgeting for Evaluations	<p>ONLINE LECTURE: Introduction to Budgets</p> <p>REQUIRED READING:</p> <ul style="list-style-type: none"> • Quinn Patton, M. <i>Essentials of utilization-focused evaluation</i>. 2012 Sage Publications, Inc. Chapter 13. <p>RECOMMENDED READING:</p> <ul style="list-style-type: none"> • King JA, Strevahn L. Dealing with the Unexpected in Program Evaluation. Chapter 8 in <i>Interactive Evaluation Practice</i>. Thousand Oaks, Calif. 	Online Quiz 9: Online Lecture & Reading closes at 8:00 a.m. today

			SAGE Publications 2013. pp. 240-284.	
20	April 4	<p>LECTURE: Involvement of Stakeholders and other Evaluation Considerations</p> <p>Guest: Linda Bosma, PhD</p>	<p>REQUIRED READING:</p> <ul style="list-style-type: none"> • May be added later 	
WEEK 11				
21	April 9	<p>LECTURE: Communicating evaluation methods and findings</p> <p>WORKSHOP: <i>Critiquing an Evaluation Report</i></p>	<p>REQUIRED READING:</p> <ul style="list-style-type: none"> • CDC. Developing an effective evaluation report: Setting the course for effective program evaluation. Atlanta, Georgia: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Division of Nutrition, Physical Activity and Obesity, 2013. https://www.cdc.gov/eval/materials/developing-an-effective-evaluation-report_tag508.pdf <p>REVIEW FOR WORKSHOP:</p> <ul style="list-style-type: none"> • Philadelphia Community Court Evaluation Final Report: Outcome/Impact Analysis and Update on Process Evaluation. https://ndcrc.org/resource/philadelphia-community-court-evaluation-final-report-outcomeimpact-analysis-and-update-on-process-evaluation/ <p>RECOMMENDED READING:</p> <ul style="list-style-type: none"> • Quinn Patton, M. <i>Essentials of utilization-focused evaluation</i>. 2012 Sage Publications, Chapter 14. 	<p>Online Quiz 10: Reading closes at 8:00 a.m. today</p>
22	April 11	REVIEW SESSION	<p>REQUIRED READING:</p> <ul style="list-style-type: none"> • None 	

WEEK 12				
23	April 16	IN-CLASS EXAM	REQUIRED READING: • None	IN-CLASS EXAM
24	April 18	WORK SESSION: Planning for Small-Group Presentation & Handout	REQUIRED READINGS: • None	
WEEK 13				
25	April 23	WORK SESSION: Planning for Small-Group Presentation & Handout	REQUIRED READING: • None	
26	April 25	WORK SESSION: Planning for Small-Group Presentation & Handout	REQUIRED READINGS : • None	
WEEK 14				
27	April 30	STUDENT PRESENTATIONS: Small-group presentation of summary of evaluation reports/critique Other rooms: Mayo D199 and WDH 2-110	REQUIRED READINGS : None	Assignment Due: Small-group PowerPoint Presentation & Handout
28	May 2	Synthesis Discussion	REQUIRED READINGS : • None	
<p>Final Assignment Due: Critique of an Evaluation Plan FINAL ASSIGNMENT DUE: MAY 7, 2018. Assignments must be received by midnight May 7, 2018.</p>				

SPH AND UNIVERSITY POLICIES & RESOURCES

The School of Public Health maintains up-to-date information about resources available to students, as well as formal course policies, on our website at www.sph.umn.edu/student-policies/. Students are expected to read and understand all policy information available at this link and are encouraged to make use of the resources available.

The University of Minnesota has official policies, including but not limited to the following:

- Grade definitions
- Scholastic dishonesty
- Makeup work for legitimate absences
- Student conduct code
- Sexual harassment, sexual assault, stalking and relationship violence
- Equity, diversity, equal employment opportunity, and affirmative action
- Disability services
- Academic freedom and responsibility

Resources available for students include:

- Confidential mental health services
- Disability accommodations
- Housing and financial instability resources
- Technology help
- Academic support

EVALUATION & GRADING

Students will be evaluated on:

- Team data collection workshop/other workshops	15%
- Online quizzes	10%
- In-class exam	35%
- Evaluation plan/Small-group presentation & handout	20%
- Evaluation report critique	20%

On designated days, students should complete the online quizzes before 8:00 a.m. The quizzes can be completed anytime within two days before it is due. You will have 15 minutes to complete each of the quizzes. The quizzes will include T/F and multiple-choice questions that focus on major concepts from the readings and any online lectures for that week.

The in-class exam will cover material addressed up until the Review Day, including lectures (in-class and online), workshops, and readings. The exam may include T/F, multiple choice, and short-answer questions.

Students will be expected to participate in the workshops. There are workshops scheduled throughout the semester. The first two, data collection workshops will culminate in a group report that will be worth 4 points. The remaining workshops are worth 1 point each.

For each day late, 1 point will be taken off assignments, quizzes, workshops, and the exam without prior approval from the instructor.

Grading Scale

The University uses plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following, and you can expect the grade lines to be drawn as follows:

% In Class	Grade	GPA
93 - 100%	A	4.000
90 - 92%	A-	3.667
87 - 89%	B+	3.333
83 - 86%	B	3.000
80 - 82%	B-	2.667
77 - 79%	C+	2.333
73 - 76%	C	2.000
70 - 72%	C-	1.667
67 - 69%	D+	1.333
63 - 66%	D	1.000
< 62%	F	

- A = achievement that is outstanding relative to the level necessary to meet course requirements.
- B = achievement that is significantly above the level necessary to meet course requirements.
- C = achievement that meets the course requirements in every respect.
- D = achievement that is worthy of credit even though it fails to meet fully the course requirements.
- F = failure because work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I (Incomplete).
- S = achievement that is satisfactory, which is equivalent to a C- or better
- N = achievement that is not satisfactory and signifies that the work was either 1) completed but at a level that is not worthy of credit, or 2) not completed and there was no agreement between the instructor and student that the student would receive an I (Incomplete).

Evaluation/Grading Policy	Evaluation/Grading Policy Description
<p>Scholastic Dishonesty, Plagiarism, Cheating, etc.</p>	<p>You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis (As defined in the Student Conduct Code). For additional information, please see https://z.umn.edu/dishonesty</p> <p>The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: https://z.umn.edu/integrity.</p> <p>If you have additional questions, please clarify with your instructor. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.</p> <p>Indiana University offers a clear description of plagiarism and an online quiz to check your understanding (http://z.umn.edu/iuplagiarism).</p>
<p>Late Assignments</p>	<p>For each day late, 1 point will be taken off assignments, quizzes, workshops, and the exam without prior approval from the instructor.</p>
<p>Attendance Requirements</p>	<p>Students will be expected to attend class and to participate in the workshops. There are workshops scheduled throughout the semester. The first two, data collection workshops will culminate in a group report that will be worth 6 points. The remaining workshops are worth 1 point each.</p>

CEPH Foundational Competency	Learning Objectives	Assessment Strategies
F2. Select quantitative and qualitative data collection methods appropriate for a given health context	Compare different options for data collection.	Quizzes, Data Collection Workshop Exercise, Small-group Data Collection Report, Exam
F7. Assess population needs, assets and capacities that affect communities' health.	Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.	Quiz, Assessment Workshop Exercise, Exam
F10. Explain basic principles and tools of budget and resource management	Describe basic management issues related to evaluation (e.g., budgets, staffing).	Quiz, Exam
11. Select methods to evaluate public health programs or policies	<p>Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.</p> <p>Design a basic evaluation plan.</p> <p>Explain strengths and limitations of different evaluations.</p>	Quizzes, Workshop Exercises, Small Group Presentation & Handout
F19. Communicate audience-appropriate public health content, both in writing and through oral presentation	<p>Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.</p> <p>Explain strengths and limitations of different types of evaluation designs.</p>	Quiz, Workshop Exercise, Small Group Presentation & Handout, Report Critique
F20. Describe the importance of cultural competency in communicating public health content	<p>Understand importance of involving stakeholders.</p> <p>Explain evaluation terms, issues, and plans to wide range of stakeholders in a way that is accessible to all.</p>	Quiz, Workshop Exercise, Exam

CHP Competency	Learning Objectives	Assessment Strategies
CHP9: Explain why evaluating interventions is important for public health.	Describe the importance of evaluation for public health.	Quiz, Exam
CHP10. Develop and critique logic models for evaluations of public health interventions.	Understand use of and how to develop logic models.	Quiz, Assessment Workshop Exercise, Exam
CHP11. Understand formative, process, and outcome evaluation and how to answer questions for each type of evaluation	Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.	Quiz, Exam
CHP12. Be able to identify, critique, and develop different types of evaluation (i.e., study) designs.	<p>Explain strengths and limitations of different types of evaluation designs.</p> <p>Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.</p> <p>Design a basic evaluation plan.</p>	Quizzes, Workshop Exercises, Small Group Presentation & Handout
CHP15: Develop evaluation material, such as protocols and data collection tools.	<p>Describe ways to improve the quality of data.</p> <p>Compare different options for data collection.</p>	Quiz, Workshop Exercise, Exam
CHP16: Understand importance of getting ongoing feedback from and engagement with stakeholders during evaluation development and implementation.	Understand importance of involving stakeholders.	Quiz, Exam
CHP17: Critique evaluation reports and/or scientific papers	Understand how to develop an effective evaluation report.	Workshop Exercise, Evaluation Report Critique

MCH Competency	Learning Objectives	Assessment Strategies
MCH1: Use publically available data to appraise and/or prioritize important health issues for specific MCH populations, including place, race, and status disparities in health and wellness.	<p>Describe ways to improve the quality of data.</p> <p>Compare different options for data collection.</p>	Workshop Exercises, Exam
MCH7. Develop, edit, or use surveys, questionnaires, indicators, or other qualitative or quantitative tools to help assess MCH population needs or evaluate the effectiveness of an existing program for specific MCH population groups.	<p>Describe ways to improve the quality of data.</p> <p>Compare different options for data collection.</p>	Workshop Exercise, Quiz, Exam
MCH11. Communicate with diverse audiences about MCH populations, issues, and/or services through oral presentations, website content, social media, or written scholarship and reports.	<p>Understand importance of involving stakeholders.</p> <p>Understand how to develop an effective evaluation report.</p>	Workshop Exercise, Exam, Evaluation Report Critique
MCH12. Conduct an environmental scan or other community needs assessment to identify systems, stakeholders, programs, practices or other features that impact the health of MCH populations in a given location.	Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.	Workshop Exercise, Quiz, Exam
MCH13. Identify factors that facilitate or impede implementation of evidence-based programs in MCH or otherwise assist in MCH program implementation.	<p>Explain strengths and limitations of different types of evaluation designs.</p> <p>Design a basic evaluation plan.</p>	Quizzes, Workshop Exercises, Small Group Presentation & Handout

Public Health Nutrition Competency	Learning Objectives	Assessment Strategies
<p>PHN8: Design and implement a needs assessment to inform the development of a nutrition or physical activity program or policy, systems or environmental intervention.</p>	<p>Describe the main components of evaluation, including assessment, formative evaluation, process evaluation, and outcome evaluation.</p> <p>Describe ways to improve the quality of data.</p> <p>Compare different options for data collection.</p>	<p>Workshop Exercises, Quizzes, Exam, Small Group Presentation and Handout</p>
<p>PHN10: Prepare a budget for the development and evaluation of a nutrition or physical activity intervention</p>	<p>Describe basic management issues related to evaluation (e.g., budgets, staffing).</p> <p>Describe ways to improve the quality of data.</p> <p>Compare different options for data collection.</p>	<p>Quiz, Exam</p>
<p>PHN12: Analyze how policy, systems changes and environmental changes affect the health and nutritional status of populations.</p>	<p>Explain strengths and limitations of different types of evaluation designs.</p> <p>Design a basic evaluation plan.</p>	<p>Workshop Exercises, Quizzes, Exam, Small Group Presentation and Handout</p>