

**Assurance of Student Learning Report
2022-2023**

CHHS	<i>Replace this with your Department Name</i>
Epidemiology Certificate-1751	
Xiuhua Ding	
Is this an online program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Please make sure the Program Learning Outcomes listed match those in Course Leaf . Indicate verification here <input checked="" type="checkbox"/> Yes, they match! (If they don't match, explain on this page under Assessment Cycle)

Use this page to list learning outcomes, measurements, and summarize results for your program. Detailed information must be completed in the subsequent pages. Add more Outcomes as needed.

Program Student Learning Outcome 1: Apply epidemiological methods to assess and analyze impact of public health problems.

Instrument 1	Direct: Research Project Report (PH 630)
Instrument 2	Indirect: Exit survey
Instrument 3	

Based on your results, check whether the program met the goal Student Learning Outcome 1.	<input checked="" type="checkbox"/> Met	<input type="checkbox"/> Not Met
---	--	---

Program Student Learning Outcome 2: Interpret epidemiological findings, including relevance to public health practice.

Instrument 1	Direct: Research Project Report (PH 630)
Instrument 2	Indirect: Exit survey
Instrument 3	

Based on your results, check whether the program met the goal Student Learning Outcome 2.	<input checked="" type="checkbox"/> Met	<input type="checkbox"/> Not Met
---	--	---

Program Student Learning Outcome 3: Communicate epidemiological findings to professional and lay audiences

Instrument 1	Direct: Research Project Report (PH 630)
Instrument 2	
Instrument 3	Indirect: Exit survey

Based on your results, check whether the program met the goal Student Learning Outcome 3.	<input checked="" type="checkbox"/> Met	<input type="checkbox"/> Not Met
---	--	---

Assessment Cycle Plan:

Next year, we plan to revise and/refine the instruments used to assess these learning outcomes

Program Student Learning Outcome 1

Program Student Learning Outcome	Apply epidemiological methods to assess and analyze impact of public health problems.		
Measurement Instrument 1	<p>NOTE: Each student learning outcome should have <u>at least one direct measure of student learning</u>. Indirect measures are not required.</p> <p>Assessment of section of Integration of Knowledge of Research project in PH 630 class: Students are required to write a report on a semester-long project that uses an epidemiological perspective to describe a public health problem by applying epidemiological methods learned in class, analyze the data, and interpret findings.</p>		
Criteria for Student Success	Students earn 20/30 or higher on section of integration of knowledge of Research project.		
Program Success Target for this Measurement	60% students in the class score 20/30 or higher in section of integration of knowledge.	Percent of Program Achieving Target	5 out of 8 (62.5%) students have earned 20/30 or higher and achieved this goal
Methods	The report is graded by the course instructor. Individual grades are computed for the section of Integration of Knowledge and counted for this measurement. The summary is reported for all students in PH630 during the academic year (N=8).		
Measurement Instrument 2	<u>Epidemiology Certificate Survey</u> : Students enrolled in Epidemiology Certificate Program are required to complete a survey to indicate the extent to which the certificate met the objective “Apply epidemiological methods to describe public health problem.”		
Criteria for Student Success	Students rate objective as agree or higher on the question		
Program Success Target for this Measurement	At least 80% of students completing certificate will rate the objective as agree or higher on the question	Percent of Program Achieving Target	8 out 8 (100%) students have rated the question as agree or higher
Methods	Students enrolled in the Epidemiology Certificate program complete mandatory exit survey. System identifies who has completed the survey, but responses are not linked to the respondents. On the survey, students are asked to rate the extent to which the certificate met its objectives. Results are analyzed descriptively, and data are recoded in and compared to target.		
Measurement Instrument 3			
Criteria for Student Success			

Program Success Target for this Measurement		Percent of Program Achieving Target	
Methods			
Based on your results, highlight whether the program met the goal Student Learning Outcome 1.		<input checked="" type="checkbox"/> Met	<input type="checkbox"/> Not Met
Results, and Plans for Next Assessment Cycle (Describe what worked, what didn't, and plan going forward)			
<u>Results:</u> The PH630 course has been re-developed in the past year as well as the instructions for assessing this learning objective. Also we developed and taught a new elective course-PH631 for the Epi certificate to strengthen the program. These changes met the expectations for this learning objective .			
<u>Conclusions:</u> The redeveloped PH630 provides students a wide range of opportunity and hand-on real-life experience to implement the skills they learned during the program and meet the need for this learning objective. Also, the new developed PH631 course strengthen and complement these skills.			
<u>Plans for Next Assessment Cycle:</u> We plan to revise and/or refine the rubric for PH 630 research project to better assess this objective. For measurement instrument 1, the program will consider increasing the criteria for success.			

Program Student Learning Outcome 2			
Program Student Learning Outcome	Interpret epidemiological findings, including relevance to public health practice.		
Measurement Instrument 1	<p>NOTE: Each student learning outcome should have at least one direct measure of student learning . Indirect measures are not required.</p> <p>Assessment of section of Depth of Discussion of Research project in PH 630 class: Students are required to write a report on a semester-long that uses an epidemiological perspective to describe a public health problem by applying epidemiological methods learned in class, analyze the data, and interpret findings.</p>		
Criteria for Student Success	Students earn 10/15 or higher on section of Depth of discussion Research project.		
Program Success Target for this Measurement	60% students in the class score 10/15 or higher in section of depth of discussion	Percent of Program Achieving Target	7 out of 8 (87.5%) students have earned 10/15 or higher and achieved this goal
Methods	Assessment of Depth of Discussion of Research project in PH 630 class: Students are required to write a report on a semester-long that uses an epidemiological perspective to describe a public health problem by applying epidemiological methods learned in class, analyze the data, and interpret findings.		
Measurement Instrument 2	<u>Epidemiology Certificate Survey:</u> Students enrolled in Epidemiology Certificate Program are required to complete a survey to indicate the extent to which the certificate met the objective “Apply epidemiological methods to describe public health problem.”		
Criteria for Student Success	Students rate objective as agree or higher on the question		

Program Success Target for this Measurement	At least 80% of students completing certificate will rate the objective as agree or higher on the question	Percent of Program Achieving Target	8 out 8 (100%) students have rated the question as agree or higher
Methods	Students enrolled in the Epidemiology Certificate program complete mandatory exit survey. System identifies who has completed the survey, but responses are not linked to the respondents. On the survey, students are asked to rate the extent to which the certificate met its objectives. Results are analyzed descriptively, and data are recoded in and compared to target.		
Measurement Instrument 3			
Criteria for Student Success			
Program Success Target for this Measurement		Percent of Program Achieving Target	
Methods			
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.			<input checked="" type="checkbox"/> Met <input type="checkbox"/> Not Met
Results, Conclusion, and Plans for Next Assessment Cycle (Describe what worked, what didn't, and plan going forward)			
<p>Results: The PH630 course has been re-developed in the past year as well as the instructions for assessing this learning objective. Also, we developed and taught a new elective course-PH631 for the Epi certificate to strengthen the program. These changes met the expectations for this learning objective.</p> <p>Conclusions: The redeveloped PH630 provides students a wide range of opportunity and hand-on real-life experience to implement the skills they learned during the program and meet the need for this learning objective. Also, the new developed PH631 course strengthen and complement these skills.</p> <p>Plans for Next Assessment Cycle: We plan to revise and/or refine the rubric for PH 630 research project to better assess this objective. For measurement instrument 1, the program will consider increasing the criteria for success</p>			

Program Student Learning Outcome 3	
Program Student Learning Outcome	Communicate epidemiological findings to professional and lay audiences
Measurement Instrument 1	<p>NOTE: Each student learning outcome should have at least one direct measure of student learning . Indirect measures are not required.</p> <p>Assessment of section of cohesiveness of Research project in PH 630 class: Students are required to write a report on a semester-long that uses an epidemiological perspective to describe a public health problem by applying epidemiological methods learned in class, analyze the data, and interpret findings.</p>
Criteria for Student Success	

	Students earn 15/20 or higher on section of Cohesiveness of Research project.		
Program Success Target for this Measurement	60% students in the class score 15/20 or higher in section of cohesiveness	Percent of Program Achieving Target	7 out 8 (87.5%)
Methods	Assessment of Cohesiveness of Research project in PH 630 class: Students are required to write a report on a semester-long project that uses an epidemiological perspective to describe a public health problem by applying epidemiological methods learned in class, analyze the data, and interpret findings.		
Measurement Instrument 2	<u>Epidemiology Certificate Survey</u> : Students enrolled in Epidemiology Certificate Program are required to complete an survey to indicate the extent to which the certificate met the objective “Apply epidemiological methods to describe public health problem.”		
Criteria for Student Success	Students rate objective as agree or higher on the question		
Program Success Target for this Measurement	At least 80% of students completing certificate will rate the objective as agree or higher on the question	Percent of Program Achieving Target	8 out 8 (100%) students have rated the question as agree or higher
Methods	Students enrolled in the Epidemiology Certificate program complete mandatory exit survey. System identifies who has completed the survey, but responses are not linked to the respondents. On the survey, students are asked to rate the extent to which the certificate met its objectives. Results are analyzed descriptively, and data are recoded in and compared to target.		
Measurement Instrument 3			
Criteria for Student Success			
Program Success Target for this Measurement		Percent of Program Achieving Target	
Methods			
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.			<input checked="" type="checkbox"/> Met <input type="checkbox"/> Not Met
Results, Conclusion, and Plans for Next Assessment Cycle (Describe what worked, what didn't, and plan going forward)			
<p><u>Results</u>: The PH630 course has been re-developed in the past year as well as the instructions for assessing this learning objective. Also, we developed and taught a new elective course-PH631 for the Epi certificate to strengthen the program. These changes met the expectations for this learning objective.</p> <p><u>Conclusions</u>: The redeveloped PH630 provides students a wide range of opportunity and hand-on real-life experience to implement the skills they learned during the program and meet the need for this learning objective. Also, the new developed PH631 course strengthen and complement these skills.</p> <p><u>Plans for Next Assessment Cycle</u>: We plan to revise and/or refine the rubric for PH 630 research project to better assess this objective. Also, more students rate agree than strongly agree for the Communicate epidemiological findings to professional and lay audiences. So we probably need to find more artifact for the communication assessment.</p>			

Also, more students rate agree than strongly agree for the Communicate epidemiological findings to professional and lay audiences. So we may need to add content or artifact for this assessment.

***** Please include Curriculum Map (below/next page) as part of this document**

CURRICULUM MAP Example

Program name:	Epidemiology Certificate-1751					
Department:	Public Health					
College:	CHHS					
Contact person:	Xiuhua Ding					
Email:	xiuhua.ding@wku.edu					
KEY:						
I = Introduced						
R = Reinforced/Developed						
M = Mastered						
A = Assessed						
			Learning Outcomes			
			LO1:	LO2:	LO3:	LO4:

			Describe public health problem from epidemiological perspective	Apply epidemiological methods to assess and analyze impact of public health problems.	Interpret epidemiological findings, including relevance to public health practice.	Communicate epidemiological findings to professional and lay audiences.
Course Subject/Core Course	Number	Course Title				
PH	581	Applied Methods in Public Health Practice/Field Epidemiology	M.A	M.A	M.A	M.A
PH	582	Epidemiology	I	I.A	I.R.A	I.R.A
PH	630	Advanced Epidemiology	M.A	M.A	M.A	M.A

Applied research project PH630

Purpose: The analysis project for the course requires that you apply appropriate analytic methods (such as estimating prevalence and incidence, examining association between exposure and an outcome and making inference, assessing confounding and interaction, and so on) that we have been learning about to the analysis of a real dataset.

Objective: The primary objective of this assignment is to provide you with hand on experience on evidence based public health practice. Students will obtain experience in creating research question, select and manage dataset, analyzing, interpreting and presenting of epidemiologic data. Students will conduct the literature search and review based on the topic they are interested in, create a research question, identify dataset that can address their research question, analyze data and write the research report.

Guidelines for content:

Your final report for the research project will essentially be equivalent to the research articles without the discuss section. Your report should accomplish the following objectives:

1. Articulate your research question
2. Discuss and evaluate the existing literature reviews related to your research area/ questions
3. Analyze data by applying appropriate methods
4. Summarize your findings and make inference
5. State your conclusion and recommendations.

More specifically, your report will include:

- a) A title that represents the content of your report
- b) Literature review: An open paragraph or two to discuss the background or existing research in your research field. State your research question.
- c) Main body will include the following sections: **method, result, conclusion/discussion,**
- d) Recommendation for the public health.

The details can be found below :

Part I. Literature Review. Include at least 5-10 references. The review should be one page in length. Correct spelling, grammar, and syntax are expected. Use American Medical Association citation and bibliography format. PLEASE DO NOT PLAGIARIZE FROM YOUR SOURCES. If you are unsure what constitutes plagiarism, consult with your instructor before submitting your assignment.

Part II. Method.

In the method section, you should discuss the source of dataset, study design, target population, measurement of exposure and outcomes (all the variables were included in the data analysis, how they were in the dataset)

statistical method used (such as frequency , percentage, chi-square, stratification, Breslow-day test).

Part III. Results.

Note : The result section below is just an example. You do not need to use the exact format. However, I expect you to create table to demonstrate your results rather than copy and paste your SAS output.

1. Univariate: Using SAS PROC FREQ or its equivalent in a different statistical package if applicable , generate a chi-square test for family history, TypeA, Htn , smoker and CHD and create the table. At the 0.05 level of significance, summarize the finding in the table 1 and table 2

Table 1	Variables	All subjects* (N =462)
	N	
	Exposure, n(%)	
	Outcome, n(%)	
	Other vairables, n(%)	

2. Describe the findings from the table above
3. Two variable analysis

Table 2	Variables	Outcome (Yes)	Outcome (No)	P value
	N			
	Exposure, n(%)			
	Other vairables, n(%)			

4. State the associate between the exposure and outcome
5. Write a paragraph to summarize the finding in the tbale

Part IV . State your conclusion and public health recommendation based on the evidence from the project

Part V. Reflection what you learned and expected to be added in future

The rubric below is adapted from the source below:

<https://www.cornellcollege.edu/library/faculty/focusing-on-assignments/tools-for-assessment/ResearchPaperRubric.pdf>

	Expert	Proficient	Apprentice	Novice
Integration of Knowledge	The paper demonstrates that the author fully understands and has applied concepts learned in the course. Concepts are integrated into the writer's own insights. The writer provides concluding remarks that show analysis and synthesis of ideas.	The paper demonstrates that the author, for the most part, understands and has applied concepts learned in the course. Some of the conclusions, however, are not supported in the body of the paper.	The paper demonstrates that the author, to a certain extent, understands and has applied concepts learned in the course.	The paper does not demonstrate that the author has fully understood and applied concepts learned in the course.
Topic focus	The topic is focused narrowly enough for the scope of this	The topic is focused but lacks direction. The paper is about a	The topic is too broad for the scope of this assignment.	The topic is not clearly defined.

	Expert	Proficient	Apprentice	Novice
	assignment. A thesis statement provides direction for the paper, either by statement of a position or hypothesis.	specific topic but the writer has not established a position.		
Depth of discussion	In-depth discussion & elaboration in all sections of the paper.	In-depth discussion & elaboration in most sections of the paper.	The writer has omitted pertinent content or content runs-on excessively. Quotations from others outweigh the writer's own ideas excessively.	Cursory discussion in all the sections of the paper or brief discussion in only a few sections.
Cohesiveness	Ties together information from all sources. Paper flows from one issue to the next without the need for headings. Author's writing demonstrates an understanding of the relationship among material obtained from all sources.	For the most part, ties together information from all sources. Paper flows with only some disjointedness. Author's writing demonstrates an understanding of the relationship among material obtained from all sources.	Sometimes ties together information from all sources. Paper does not flow - disjointedness is apparent. Author's writing does not demonstrate an understanding of the relationship among material obtained from all sources.	Does not tie together information. Paper does not flow and appears to be created from disparate issues. Headings are necessary to link concepts. Writing does not demonstrate understanding any relationships
Spelling and grammar	No spelling &/or grammar mistakes.	Minimal spelling &/or grammar mistakes.	Noticeable spelling & grammar mistakes.	Unacceptable number of spelling and/or grammar mistakes.
Citations	Cites all data obtained from other sources. APA citation style is used in both text and bibliography.	Cites most data obtained from other sources. APA citation style is used in both text and bibliography.	Cites some data obtained from other sources. Citation style is either inconsistent or incorrect.	Does not cite sources.

