

**Assurance of Student Learning Report
2020-2021**

College of Health and Human Services	Department of Public Health
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Occupational Safety and Health Certificate (1705)

Edrisa Sanyang

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

Student Learning Outcome 1: Identify and compile relevant information sources to assess an occupational safety and health problem.

Instrument 1	Direct: Term Paper
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Instrument 2	
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Instrument 3	
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Based on your results, check whether the program met the goal Student Learning Outcome 1.

Met Not Met

Student Learning Outcome 2: Interpret and communicate occupational safety and health regulations.

Instrument 1	Direct: Analysis and discussion of an occupational safety and health regulations
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Instrument 2	
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Instrument 3	
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Based on your results, check whether the program met the goal Student Learning Outcome 2.

Met Not Met

Student Learning Outcome 3: Apply appropriate field methods to collect occupational safety and health data.

Instrument 1	Direct: Comprehensive lab report.
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Instrument 2	
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Instrument 3	
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Based on your results, check whether the program met the goal Student Learning Outcome 3.

Met Not Met

Program Summary (Briefly summarize the action and follow up items from your detailed responses on subsequent pages.)

This assessment indicates that the mean scores for all SLOs meets program success targets. Adjustments in course offerings have helped strengthen program goals and outcomes. The program is preparing students for jobs in the field, as indicated by a greater than 95% employment rate in the field. This includes the B.S. in EOHS, as well. Changes will be made to core course requirements in Spring 2021 to meet the current accreditation standards for National Environmental Health Science and Protection Accreditation Council. This includes demonstrated assessment of SLOs in the overarching competencies of communication, assessment, and management. Currently, SLOs 1, 2, and 3 meet these overarching competencies.

Revisit the program on an annual basis to ensure core course SLOs are aligned with program competencies and EHAC accreditation standards. The evaluation will assess student opportunities to attain required competencies in core course.

- Review EHAC accreditation standards.
- Review program mission, competencies and outcomes.
- Review SLOs and outcomes for core courses.

Ensure program competencies and SLOs are met through core courses.

Student Learning Outcome 1

Student Learning Outcome	Identify and compile relevant information sources to assess an occupational safety and health problem.		
Measurement Instrument 1	Direct measure of student learning: Students in ENV 480 Hazardous and Solid Waste, an online senior level course in the certificate, were required to complete a term paper that required them to assess a hazardous waste issue by collecting background information, reviewing pertinent references, and providing a detailed discussion. The report was broken into five parts to evaluate each program SLO. To assess SLO 1 the introduction of the report, that included a literature review and background, was evaluated.		
Criteria for Student Success	Students should score “Proficient” or greater on the Environmental Health Reports Rubric for SLO 1. Scores on the rubric item for this SLO ranged from “Exemplary” (90-100), “Proficient” (Upper 80-89), “Apprentice” (70-79), and “Novice” (60-69).		
Program Success Target for this Measurement	75% of students will score proficient or greater on SLO 1.	Percent of Program Achieving Target	75% of students scored proficient or greater on SLO 1.
Methods	Direct: Artifacts from the ENV 480 Hazardous and Solid Waste course were collected from all students in the course (N = 8). The papers were evaluated according to the Environmental Health Reports Rubric (Appendix 1). Each student paper was scored from 1 to 4 on each of the SLOs in the rubric. Scores represented the following ranges “Exemplary - 4” (90-100), “Proficient - 3” (Upper 85-90) and (Lower 80-84), “Apprentice - 2” (70-79), and “Novice - 1” (60-69). SLO 1 was assessed based on the lab report learning outcome of “Compile Environmental Health Information”. A total of 6 of 8 students scored “Proficient” or greater for SLO 1.		
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
Actions (Describe the decision-making process and actions for program improvement. The actions should include a timeline.)			
To provide a more comprehensive evaluation of SLO 1 a team of three EOHS faculty members will evaluate the rubric for SLO 1 in the Fall 2021 semester.			
Follow-Up (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)			
If changes are found to be needed to the rubric used for the evaluation of SLO 1 those changes will be completed and implemented by the Spring 2022 semester.			
Next Assessment Cycle Plan (Please describe your assessment plan timetable for this outcome)			
Assessments for the EOHS program occur on a yearly basis, therefore, the next assessment of SLO 1 will occur in the Fall 2021 semester. The term paper will continue to be collected from the ENV 321 course. The program coordinator for the 2021/22 academic year, Jacqueline Basham, will be responsible for collecting and providing information and data related to SLO 1 from the instructor of record for ENV 480.			

Student Learning Outcome 2

Student Learning Outcome	Interpret and communicate occupational safety and health regulations.		
Measurement Instrument 1	Students in ENV 120 Occupational Safety and Health, a required course in the certificate, completed an analysis of an occupational safety and health regulation. This required each student to interpret the regulation and communicate the regulation through a discussion. The assignment met SLO 2 by requiring students to analyze a scenario at a workplace and develop a discussion based on interpretation and application of the regulation.		
Criteria for Student Success	Students should score "Lower Distinguished" (80%) or greater on the assignment.		
Program Success Target for this Measurement	75% of students will score lower distinguished or greater on SLO 2.	Percent of Program Achieving Target	75% of students scored lower distinguished or greater on SLO 2.
Methods	Direct: Artifacts from ENV 120 Introduction to Occupational Safety and Health course were collected from all students in the course (N = 68). Analyses were evaluated according to the rubric in the course. Each student analysis was scored from Novice, Competent, and Distinguished on each of the SLOs in the rubric. SLO 2 was assessed based on score for the assignment, based on the rubric. Results of the assessment indicated that 51 of 68 students met the criteria for SLO 2.		
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
Actions (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.)			
The target for meeting SLO 2 was achieved but to in order to continue to provide a comprehensive evaluation of SLO 2 a team of three EOHS faculty members will review the results of SLO 2 yearly.			
Follow-Up (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)			
If changes are found to be needed for the evaluation of SLO 2 those changes will be completed and implemented by the Spring 2022 semester.			
Next Assessment Cycle Plan (Please describe your assessment plan timetable for this outcome)			
This outcome will be assessed in 2021/2022. Specifically, SLO 2 will be assessed by a team of three EOHS faculty members in the Fall 2021 semester. If any changes are needed they will be completed and implemented before the end of the Spring 2022 semester.			

Student Learning Outcome 3

Student Learning Outcome	Apply appropriate field methods to collect occupational safety and health data.		
Measurement Instrument 1	Direct: Artifacts from ENV 321 Industrial Hygiene course were collected from all students in the course ($N = 8$). The presentations were evaluated according to the course rubric. Each student presentation was scored from on each of the SLOs in the rubric. Scores represented the following ranges “Proficient (80-100), “Competent” (70-79), and “Novice” (Less than 70). SLO 3 was assessed based on the presentation of methods to conduct a noise assessment.		
Criteria for Student Success	Students should score “Proficient” or greater on the Environmental Health Reports Rubric for SLO 3. Scores on the rubric item for this SLO ranged from “Exemplary” (90-100), “Proficient” (Upper 80-89), “Apprentice” (70-79), and “Novice” (60-69).		
Program Success Target for this Measurement	75% of students should score proficient or greater for SLO 3.	Percent of Program Achieving Target	87.5% of students scored proficient or greater for SLO 3.
Methods	Direct: Artifacts from the course were collected from all students in the course ($N = 8$). The papers were evaluated according to the Environmental Health Term Paper Rubric (Appendix 1). Each student paper was scored on the term paper according to the rubric. Total scores on the rubric were rated from Poor to Excellent. SLO 3 was assessed based on the total score. Results of the assessment indicated that 7 of 8 students (87.5%) scored “Proficient” on SLO 3.		
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
Actions (Describe the decision-making process and actions for program improvement. The actions should include a timeline.)			
To provide a more comprehensive evaluation of SLO 3 a blind assessment method will be established with three faculty members in the EOHS program. This will be instated for the 2021-2022 program assessment. This course is offered every third semester. The next offering is Fall 2021. Additionally, the rubrics for SLO 3 will be assessed by a team of three EOHS faculty to ensure it effectively evaluates SLO 3.			
Follow-Up (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)			
If changes are found to be needed for the evaluation of SLO 2 those changes will be completed and implemented by the Spring 2022 semester.			
Next Assessment Cycle Plan (Please describe your assessment plan timetable for this outcome)			
This outcome will be assessed in 2021/2022. The instructor of record for the course will maintain the artifacts, as well as the Program Director. The instructor and the program director will evaluate the scores on the rubric and report these to the EOHS faculty for review.			

APPENDIX 1

Environmental Health Reports Rubric

Learning Outcomes	Exemplary - 4	Proficient - 3	Apprentice - 2	Novice - 1	Score
Compile environmental health information	Information was collected from relevant sources in a manner that provided interpretation of the environmental health issue, problem, or methods applied.	Information was collected from relevant sources in a manner that provided synthesis of the environmental health issue, problem, or methods applied.	Information was collected from relevant sources with some interpretation, but a synthesis of the environmental health issue, problem, or methods applied was not provided.	Information was collected from relevant sources with no interpretation or synthesis of the environmental health issue, problem, or methods applied was not provided.	
Explanation of the environmental health problem	Environmental health issue or problem was comprehensively stated and explained.	Environmental health issue or problem was clearly stated and explained.	Environmental health issue or problem was clearly stated but not explained.	Environmental health issue or problem was not clearly stated or explained.	
Apply methods to assess the environmental health problem or issue	Field and laboratory methods were applied correctly in a manner that provided a comprehensive analysis of the problem.	Field and laboratory methods were applied correctly in a manner that provided an analysis of the problem.	Field and laboratory methods were applied correctly, yet not in manner that provided an analysis of the problem.	Field and laboratory methods were not applied correctly, and did not provide an analysis of the problem.	
Analyze data, present results, and discuss the findings	Data analysis was correct and presented through a series of graphs and tables that were explained in the report.	Data analysis was correct and presented through a graph or table that that was explained in the report.	Data analysis had errors and a table or graph was presented, yet it was not explained in the text of the report.	Data analysis had errors and a table or graph was not presented nor explained the report.	
Develop conclusions and recommendations of the assessment	Conclusions and recommendations were developed that provided a comprehensive solution to the environmental health problem.	Conclusions and recommendations were discussed that provided a solution to the environmental health problem.	Conclusions and recommendations were presented, but did not provide a solution to the environmental health problem.	A Conclusion was presented, with not recommendations, and it did not include a solution to the environmental health problem.	