SAINT LOUIS UNIVERSITY

Program-Level Assessment: Annual Report

Program Name (no acronyms): BS in Health Management	Department: Undergraduate Public Health Programs
Degree or Certificate Level: BS	College/School: CPHSJ
Date (Month/Year): Oct 2021	Assessment Contact: Lauren Arnold
In what year was the data upon which this report is based collected? 2020-2021 Academic Year	
In what year was the program's assessment plan most recently reviewed/updated? 2020	

1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle? (Please list the full, complete learning outcome statements and not just numbers, e.g., Outcomes 1 and 2.)

This assessment cycle focused on LOs 1, 3, and 4:
LO1: Describe the impact of social, cultural, economic, financial and political factors on health care organizations
LO4: Apply the principles and core functions of management and decision theory
LO5: Based on audience characteristics develop, organize and express ideas and information clearly

2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe and identify the course(s) in which these artifacts were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

LO1, LO4, and LO5 were assessed using midterm and final exam question data from HMP4500, one of the two final courses students take in the major.

Note: Due to COVID-19, HMP4500 and EPI4000 were taught using an "in-person flex" model by which class was held in person with students unable to attend in person simultaneously joining class by zoom. Students could have opted for simultaneous Zoom attendance all semester, while in quarantine/isolation, or per individual classes as needed.

3. Assessment Methods: Evaluation Process

What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and **include them in/with this report document** (do not just refer to the assessment plan).

LO1, LO4, LO5: The HMP4500 instructor mapped midterm and final exam questions to each LO assessed:
- **LO1:** 5 exam questions (3 midterm, 2 final)
- **LO4:** 5 exam questions (3 midterm, 2 final)
- **LO5:** 6 exam questions (3 midterm, 3 final)

This map of exam questions to LO is provided in Appendix A.

For each exam question, the percentage of students that responded correctly was calculated for each fall and spring semesters. LO achievement was determined if ≥80% of students correctly responded to the question(s). Data were provided to the Program Director, who reviewed findings in aggregate and identified patterns, strengths, and gaps.

4. Data/Results

What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

A review of assessment data indicated that the majority of students demonstrated achievement of LO1 and LO4 assessed.   LO5 showed some gaps in the three final exam questions (2 fall, 1 spring) were answered correctly by ≤80% of students. Specifically:

- **LO1:** Of the 10 questions in fall and spring (n=5 fall, repeated in spring), 9 were answered correctly by ≥80% of students (fall/spring); the exception was 1 midterm questions in the fall.
- **LO4:** Of the 10 questions in fall and spring (n=5 fall, repeated in spring), 9 were answered correctly by ≥80% of students (fall/spring); the exception was 1 final questions in the spring.
- **LO5:** Of the 12 questions in fall and spring (n=5 fall, repeated in spring), 9 were answered correctly by ≥80% of students (fall/spring); the exception was 2 final questions in the fall and 1 final question in the spring).

5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you?

Overall, these results indicate that ≥80% of students are achieving LO1, LO4, and LO5 as measured by exam question assessment. LO1 and LO4 were particularly strong, with ≥80% achievement on nearly every question that mapped to each learning objective. However, LO5 indicated some concern, with ≥80% achievement on only 70% of questions. However, it is noted that

6. Closing the Loop: Dissemination and Use of Current Assessment Findings

A. When and how did your program faculty share and discuss these results and findings from this cycle of assessment?

Per assessment protocols, this report is shared with the Undergraduate Public Health Steering Committee at a fall semester meeting. The report is also posted on the Program's googlesite. Lastly, the report is submitted to the University Assessment Office, which posts it on its webpage for access by faculty, staff, and students.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies	• Course content • Teaching techniques • Improvements in technology • Prerequisites	• Course sequence • New courses • Deletion of courses • Changes in frequency or scheduling of course offerings
Changes to the Assessment Plan	• Student learning outcomes • Artifacts of student learning • Evaluation process	• Evaluation tools (e.g., rubrics) • Data collection methods • Frequency of data collection

Please describe the actions you are taking as a result of these findings.

No changes are being taken as a result of these findings (see below). However, the major requires several core classes that are either major-related courses or pre-requisites to some HMP courses:

Core classes that are pre-requisites to major classes:
- MATH-1400 (pre-req to EPI4000 and BST3100)
- ECON-1900 (pre-req to HMP3200)
- ACCT-2200 (pre-req to HMP4200)

Core classes that are major-related classes:
- POL-1100
- MGMT-2000
- BTM-2000
- BIOL-1240/1245 & BIOL-1620/1265 **OR** PUBH4100 **OR** ORES-2310

In Spring 2020, the Program Director (Lauren Arnold, PhD, MPH, CPH), HMP Chair (Rhonda BeLue, PhD), and HMP Department Curriculum Liaison (Kevin Syberg, DrPH) met several times to discuss how to handle these "core" classes once the new University core is implemented in Fall 2022. The recommendation was to:
- Move pre-requisite courses into a "major course pre-requisite" category;
- Require PUBH4100 as a major course (recognizing the importance of majors having an understanding of the biology behind disease and how that biology informs population health policies and interventions);
- Remove the major-related classes from the curriculum (and included them on a list of courses for students to consider as general electives)

The recommendation was presented to the HMP Department (August 2021, unanimous support), approved by the Undergraduate Public Health Steering Committee (Sept 2021), and approved by the CPHSJ Coordinating Council (Sept 2021). The changes are currently pending UAAC approval.

If no changes are being made, please explain why.

Due to the tumultuous academic year with in-person hybrid classes (which required teaching and engaging students simultaneously in-person and by Zoom) and the need for flexibility in modifying class delivery and content as the year progressed in response to student needs (e.g. due to quarantine/isolation), data collected this year are not comparable to prior years. Thus, no curricular changes will be made based on this year's data.

7. **Closing the Loop: Review of Previous Assessment Findings and Changes**
   A. What is at least one change your program has implemented in recent years as a result of assessment data?
   One change implemented in recent years was a revision of the BSHM Program Learning Outcomes; these were reduced from 9 PLOs to 5 PLOs based on prior assessment data and University guidance for PLO development.

   B. How has this change/have these changes been assessed?
   This is the second year achievement of the new program LOs was assessed. In 2019-2020, all 5 LOs were assessed for the first time; this year focused on 3 of the 5 LOs.

   C. What were the findings of the assessment?
   Based on 2019-2020 and 2020-2021 assessment, students appear to be achieving the LOs.

   D. How do you plan to (continue to) use this information moving forward?
   Because of academic challenges and course modifications to adapt to teaching during the COVID-19 pandemic (the two academic years in which the new LOs were assessed), all 5 LOs will continue to be assessed cyclically in upcoming years using artifacts from upper-level courses. Should there be indication of gaps in LO achievement, assessment will be supplemented with data from lower-level/introductory courses in an attempt to identify where foundations need to be strengthened or how LO concepts/skills need to be reinforced throughout the curriculum.

IMPORTANT: Please submit any assessment tools (e.g., rubrics) with this report as separate attachments or copied and pasted into this Word document. Please do not just refer to the assessment plan; the report should serve as a stand-alone document.

Appendix A: HMP4500 Midterm and Final Exam Questions Mapped to LO1, LO4, and LO5.

Program Learning Outcome	Question	Midterm	Final
LO1: Describe the impact of social, cultural, economic, financial, and political factors on health care organizations.	A symbiotic relationship exists between operations management and strategic management. T/F	X	
	One of the four decision making strategies discussed under decision making uncertainty Laplace is the only one that addresses the probability of one alternative and state of nature occurring more than another. T/F	X	
	States of nature, best practices and expected outcomes are three components of a basic decision making process. T/F	X	
	Assignable variation related to control charting is the variation that can be traced to a modifiable reason or cause. T/F		X
	Suboptimization is one of the factors to be considered in the formation of a task force. T/F		X
LO4: Apply the principles and core functions of management and decision theory.	Hospitals have lagged behind most organizations in adopting the use of quantitative analysis-health operations management in managing continuous improvement. T/F	X	
	Developing alternatives to address opportunities for improvements is the most important step of the decision making process. T/F	X	
	The inability in absolute amounts to know the outcome of certain "states of nature" is referred to as sub-optimization.	X	
	Expected utilization and vacation and sick time (PTO) are among the adjustment made to direct service hours to determine the total staffing requirement. T/F		X
	Being dictatorial vs. having a participatory management style is a requisite attribute to being an effective project management. T/F		X
LO5: Based on audience characteristics develop, organize and express ideas and information clearly.	Dashboards/score cards are used primarily in the preparation of process maps. T/F	X	
	Two advantages of Value Stream Mapping are that it can be done quickly and to a large extent is an automated process. T/F	X	
	The Pay Off Table shows the expected pay off for each alternate under various assumptions related to the cause(s) of the problem or the circumstance(s) creating the opportunity. T/F	X	
	"Check sheets, 1 or the 7 quality control tools recommended by Ishijkawa, are structured forms used by teams to assign accountability and monitor team performance including the meeting of deadlines." T/F		X
	PERT charts are used primarily during the formulation and analysis (Business Plan Development) phase of project management. T/F		X
	Critical path is the path with the longest time which is the most important in that other paths may experience delays which may be okay if doesn't exceed the critical path. T/F		X