SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report

Program: BS-Biostatistics	Department: Undergraduate Public Health Programs
Degree or Certificate Level: BS	College/School: CPHSJ
Date (Month/Year): December 2020	Primary Assessment Contact: Lauren Arnold

In what year was the data upon which this report is based collected? 2019-2020 Academic Year

In what year was the program's assessment plan most recently reviewed/updated? 2019

1. Student Learning Outcomes
Which of the program's student learning outcomes were assessed in this annual assessment cycle?

This assessment cycle aimed to assess LOs 1-4:
LO1: Perform computations, derivations and calculations as they relate to calculus and linear algebra.
LO2: Use standard statistical software to create and manage datasets and perform basic statistical tests
LO3: Appropriately communicate statistical results.
LO4: Apply the public health model to biostatistical work.

2. Assessment Methods: Artifacts of Student Learning
Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please 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.

The third class of BST majors graduated in May 2020. BST4400 (capstone) project provides direct assessment data, and the graduation exit survey . The Indirect assessment is done with the graduation exit survey. BST4400 was offered in the fall semester in St. Louis only and was in-person.

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.

BST4400 data: As with past years, the rubric developed by the BST4400 instructor mapped course LOs 1-4 to Capstone project elements, which in turn mapped to specific biostatistical skills. The following rubric is used:

- 0 = Student did not demonstrate understanding of LO (<70% of skills demonstrated)
- 1 = Student demonstrated understanding of LO at a basic level (70-100% of skills demonstrated)
- 1.5 = Student demonstrated understanding of LO at advanced level (>100% of skills demonstrated)

As LOs 2-4 each mapped to multiple skills, a "coverage" score was calculated, followed by the "coverage %"; this percentage mapped back to the LO achievement scale outlined above. (Coverage score of 100% = "1"; < 100% = "0"; >100% = "1.5".) e.g.:

- $LO2_{coverage}$ = missing data plan score + power score + simple methods data cleaning + multiple imputation score
- $LO2_{percentage}$ = ($LO2_{coverage}$ / 4) * 100

Graduate Exit Survey: The graduation exit survey asks students to rate their perceived achievement of LOs 1-4 on a scale of 1 (very uncomfortable) to 5 (very comfortable). Our goal was that 80% of students would report achievement at a level of 4.0 or higher (comfortable/very comfortable).

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)?

Because there was only one senior in BST4400 and who graduated, assessment results are not reported; to report them would be to identify the student.

5. Findings: Interpretations & Conclusions

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

N/A

6. Closing the Loop: Dissemination and Use of <u>Current</u> Assessment Findings

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

N/A

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

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

N/A

If no changes are being made, please explain why.

N/A

7. Closing the Loop: Review of <u>Previous</u> Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years as a result of assessment data?

N/A

B. How has this change/have these changes been assessed?

N/A

C. What were the findings of the assessment?

N/A

D. How do you plan to (continue to) use this information moving forward?

N/A

IMPORTANT: Please submit any assessment tools and/or revised/updated assessment plans along with this report.