SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report

Program Name (no acronyms): Medical Anatomy and Physiology Program	Department: Center for Anatomical Science and Education
Degree or Certificate Level: Certificate	College/School: Medicine
Date (Month/Year): July, 2022	Assessment Contact: john.martin@health.slu.edu
In what year was the data upon which this report is based collected? 2022	
In what year was the program's assessment plan most recently reviewed/updated? 2022	

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.)

    We assessed learning outcome that "Graduates will be able to will demonstrate competency in the clinically oriented anatomical sciences related to the human body through participation in didactic, **small group discussions**, interactive laboratories, and performance on written and laboratory examinations. These primary learning outcomes should better prepare the student for successful admission to medical, allied health professional or advanced graduate programs." This assessment focused mainly on the small group discussion component as it relates to Peer instruction and Active Learning.

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

    Students participate in small group discussion through a Peer Instruction methodology which incorporates polling software by which response rates were calculated. During each Peer Instruction session students have the opportunity to direct the learning of their peers by demonstrating their knowledge of a topic through a back and forth with the faculty facilitator. Students also have the opportunity to inform peers on their problem solving and test taking skills.

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** (please do not just refer to the assessment plan).

    The Peer Instruction methodology was first incorporated in the Spring of 2022. Data from individual performance could have been calculated, but these sessions are billed as "low stakes" for students, so these statistics were not acquired in the spring of 2022. The efficacy of these sessions was also assessed via a survey sent to students at the end of the semester.

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)?

    Students were asked to respond to the following statements on a scale of 1-5 with 1 as strongly disagree and 5 as strongly agree.

Question	Text
1	Peer instruction sessions allowed me to develop a deeper knowledge and better

	understanding of the material.
2	Peer instruction sessions helped prepare me for the laboratory experience.
3	The questions of a PI session helped me prepare for exams.
4	PI sessions helped my learning by forcing me to prepare more for a session than I would have for a regular lecture.
5	I felt that I learned more from PI sessions, and the preparation for them, than I would have from a traditional lecture.
6	I watched the relevant videos (pre-class assignments) in preparation for PI sessions.
7	PI sessions enhanced my ability to communicate effectively with my peers.
8	Discussing answer options with my peers helped me better understand the clinical vignettes.
9	I feel that PI sessions were relevant to developing analytical/clinical/differential reasoning skills.
10	The skills I developed during PI sessions helped me in my other courses.

The mean response data summarized below indicate that there was a positive response to the implementation of peer instruction particularly in relation to attaining a deeper understanding of the material, preparation for exams, promotion of discussion with peers, and development of analytical thinking skills.

Question	Mean
Deeper and better understanding of material	3.72
Prepare for lab experience	2.90
Prepare for exams	3.97
More prep for PI session than traditional lecture	3.21
Learned more than traditional lecture	3.26
Watched videos in advance	4.10
Improved ability to communicate with peers	3.21
Discussing with peers helped understanding	3.95
Developed analytical/clinical/differential reasoning skills	3.74

5. Findings: Interpretations & Conclusions
What have you learned from these results? What does the data tell you?

These data tell us that there was a positive response to this initial attempt at incorporation of peer instruction into the curriculum. We learned that the way we present these sessions will very much impact the perceptions of their usefulness. Clear communication between faculty, course directors, and students will help the continued refinement of these sessions to enhance student learning through peer interaction in small group discussions.

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?

Students receive nearly instantaneous feedback during Peer Instruction session. Faculty discuss these results at a course "wrap up" meeting organized by the course director.

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.

Faculty will continue refining the processes related to facilitating the Peer Instruction sessions. This includes a more well defined role of the faculty facilitator in the process. Peer Instruction will be incorporated into other courses in order to increase faculty skill running the sessions. This will also allow course directors to develop clear communication with faculty and students about the expectations and goals of these sessions.

If no changes are being made, please explain why.

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?

The implementation of Peer Instruction is partially a result of the need for opportunities for the further development of critical skills. The low stakes nature of Peer Instruction fosters robust conversation and peer interaction. While listening to these conversations it is clear that there is active critical analysis even when students may not realize they are utilizing these higher order functions.

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

An end of semester survey asked students about critical thinking skills as they relate to Peer instruction sessions.

    C. What were the findings of the assessment?

The end of semester survey indicated that students agree/strongly agree that "PI sessions were relevant to developing analytical/clinical/differential reasoning skills."

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

We will continue to evaluate each category to determine strengths and weaknesses for needed improvements.

IMPORTANT: Please submit any assessment tools (e.g., artifact prompts, 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.