

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 21, 2021

Assessment Contact: john.martin@health.slu.edu

In what year was the data upon which this report is based collected? 2020

In what year was the program's assessment plan most recently reviewed/updated? 2021

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.)

Because the outcomes of individual core anatomy courses have not been assessed recently, we decided to start assessing the first student learning outcome 1: GENERAL KNOWLEDGE: Students will demonstrate competency in the clinically oriented anatomical sciences related to the human body as evidenced by the ability to: 1) Describe prenatal human development with an emphasis on the correlation of normal embryological development with common congenital malformations. This student learning outcome is mapped to course ANAT-5200 Human Embryology which is taught during the Fall semester of the academic year. After completing this course students are expected to have mastered the conceptual basis of developmental anatomy through lectures, small group activities, a research article presentation, and examinations.

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.

The artifacts of student learning that were used to determine if students achieved the outcome include: 3 written (multiple choice question) examinations and a rubric of a research article presentation. Because results of small group activities (Peer Instruction) were not made available, this artifact was not assessed. While this course is an in-person course, some course activities were completed online. For example, 10 lectures were pre-recorded and students were required to watch and study the content of these pre-recorded lectures.

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).

Summary reports of each of the 3 exams were provided using assessment software (ExamSoft). The summary report was used by the course director to evaluate student performance and individual question performance. Individual questions answered correctly below a certain percentage were assumed to be poor questions and were removed from the exam analysis as determined by the course director. Summary reports of each research article presentation were used by the course director to assess various presentation categories. Data and student course evaluations were collected, scores were averaged, and results were reviewed by the individual course director.

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)?

For the 3 exams, an assessment score of reliability was calculated in ExamSoft and was found to range from -0.17 to 0.59, with an average of 0.48, on a scale from 0 - 1.0. The average score of 0.48 means that the likelihood of students repeating the same performance is poor to satisfactory. An assessment analysis indicated that because there were only 9 exam takers there was not enough data to draw conclusions. However, according to student responses in the course evaluation all respondents agreed or strongly agreed that the course assisted in the understanding of human prenatal development. For the research article presentations, students tend to earn high satisfactory results (very good, excellent) in each category. This may be the result of student evaluators giving high scores because 5% of the overall grade is based on presentation results. According to the student responses in the course evaluation all respondents either somewhat agreed, agreed, or strongly agreed that research paper presentations helped achieve the stated course objectives.

5. Findings: Interpretations & Conclusions

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

Regarding the 3 exams, categorizing the exam questions to specific course objectives is needed used in order to link to the student learning outcome. This would provide better evidence to support program achievement. Regarding the research article presentations, while the data does not support a strong correlation between presentation and student outcomes, the scheduled presentations does provide an opportunity for developing critical thinking and presentation skills that the course director feels necessary for a post-baccalaureate student.

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?

The Anatomy Graduate Oversight committee met in the summer of 2021 and shared data, interpreted results and identified plans for implementation next academic year.

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.

Regarding the 3 exams, while students feel the course meets the objective, categorizing the exam questions is needed used in order to link to the student learning outcome. This would provide more evidence to support program achievement. Regarding the research article presentations, while the data does not support a strong correlation between presentation and student outcomes, the scheduled presentations does provide an opportunity for developing critical thinking and presentation skills that the course director feels necessary for a post-baccalaureate student.

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?

During AY16-17 the faculty discussed the need to provide more student opportunities for developing student critical thinking skills. While no quantitative data was presented, qualitative feedback from students and faculty regarding course ANAT-6900 Journal Club identified a need to address strengthening these critical

thinking skills. As a result, the faculty implemented changes to ANAT-6900 Journal Club while also changing course activities in ANAT-5200 Human Embryology. Up to that point, course activities in ANAT-5200 included didactic lectures, reviews, and exams, which typically did not fill the 2 hour per week allotted time. This led to the incorporation of additional course activities, specifically student presentations of relevant research articles in the course. By adding this activity in the course, which is taken during the first semester of the program, an opportunity to develop student critical thinking skills earlier in the program has been addressed.

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

The incorporation of student research presentations has not been previously assessed until now.

C. What were the findings of the assessment?

The most significant finding was the need to categorize exam questions as this will assist linking to the student learning outcome and would provide more evidence to support program achievement. Regarding the research article presentations, the data does not support a strong correlation between presentation and student outcomes.

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

We plan on categorize exam questions used in assessments in order to link to the student learning outcome. We plan to continue the research article presentations in the course and modify the course objectives to include research article objectives.

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.

HUMAN EMBRYOLOGY (ANAT-5200)
FALL 2020
RESEACH ARTICLE PRESENTATION ASSESSMENT FORM

Presenter Name: _____

Evaluator Name: _____

Date: _____

	Outstanding (5)	Very Good (4)	Adequate (3)	Needs Work (2)	Unsatisfactory (1)
Understanding of topic					
Ability to get the main point of view across to the audience					
Use of figures and tables					
Time management					
Use of appropriate gestures and body language					
Use of clear visual aids relevant to spoken words					
Ability to defend or critique the selected article					
Ability to confidently handle questions					

Comments:

Evaluator's Signature: _____

Evaluation: Total score (out of 40): _____

1-8: Unsatisfactory

9-16: Needs work

17-24: Adequate

25-32: Very good

33-40: Outstanding