

## Program-Level Assessment: Annual Report

Program: **Physician Assistant**

Department: **Clinical Health Sciences**

Degree or Certificate Level: **Master of Medical Science**

College/School: **Doisy college of Health Sciences**

Date (Month/Year): **8/2022**

Primary Assessment Contact: **Caroline Chang**

In what year was the data upon which this report is based collected? **2021**

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?

Program Learning Outcome (PLO) 2 - Students will be able to use the critical thinking skills necessary to evaluate patient medical problems.

PLO 4 - Students will be able to demonstrate core medical knowledge in the provision of patient care.

### 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.

#### PLO 2

**2-1- PAED 5110 Dermatology and 5130 Otolaryngology & Ophthalmology;** Didactic Objective Structured Clinical Evaluation (OSCE)

Student artifacts were from an in-person course.

**2-2- PAED 5860 Clinical: Evidence Based Medicine Clerkship;** Clinical question oral defense

Student artifacts were from an in-person course.

#### PLO 4

**4-1- PAED 5250 Renal & PAED 5240 Endocrine;** Combined OSCE Assessment and Plan

Student artifacts were from an in-person course.

**4-2- 6000 Graduate Seminar;** Summative OSCE Assessment and Plan

Student artifacts were from in-person courses, across the clinical phase of the program.

No Madrid student artifacts were included for any learning outcomes.

### 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.

## **PLO 2**

### **2-1- PAED 5110 Dermatology and 5130 Otolaryngology & Ophthalmology; Didactic Objective Structured Clinical Evaluation (OSCE)**

This OSCE is combined for both courses, is completed by students early in the didactic phase of the program, and is the first OSCE that incorporates the medical knowledge learned in the organ systems-based courses. It requires that each student take a patient history, perform a physical exam pertinent to the medical situation, and synthesize this information into a patient assessment and management plan. This student assessment takes place on a yearly basis. PA Program faculty serve as proctors while the students are interviewing and evaluating the simulated patients and score the students on a program-completed check-off sheet. The course directors for PAED 5110 and PAED 5130 review the check-off sheets and then apply the student performance to the corresponding rubric "PLO 2-1" below. The Program Director reviews the results. The benchmark for this tool is that 85% of students will attain "comprehension" on the corresponding rubric, with the knowledge that these particular skills will be further developed during the rest of the didactic phase, and especially clinical phase (phase II) of the curriculum.

### **2-2- PAED 5860 Clinical: Evidence Based Medicine Clerkship; Clinical question oral defense**

This course is taken by our PA students during their clinical phase of the program and builds upon knowledge and skills learned during PAED 5300. Each student selects a clinical clerkship in the medical/surgical specialty of their choosing and, in conjunction with their clinical preceptor, generates a clinical question based on a "hot topic" that is specific to that medical specialty. They research evidence-based articles to find a conclusion to their question and how this conclusion should impact patient care. Then then students complete an oral defense of the information in front their peers and the PAED 5860 course director. The course director scores the students' oral defenses. These results are then compiled by the course director and applied to the rubric outlined below, "PLO 2-2." The Program Director reviews the results. The benchmark for this tool is that 85% of student will demonstrate "mastery" on the corresponding rubric, which is in keeping with the program expectations of the students at this point in the program.

## **PLO 4**

### **4-1- PAED 5250 Renal & PAED 5240 Endocrine; Combined OSCE Assessment and Plan**

The OSCE, which is combined for both courses, is a comprehensive assessment of knowledge application and synthesis over the didactic phase of the program. It requires that each student take a patient history, perform a physical exam pertinent to the medical situation, and synthesize this information into a patient assessment and management plan. This student assessment takes place on a yearly basis. The course directors for PAED 5240 and PAED 5250 score the students on the assessment and plan portion of this OSCE and then apply the student performance to the corresponding rubric "PLO 4-1" below. The Program Director reviews the results. The benchmark for this tool is that 85% of students will attain "comprehension" on the corresponding rubric, with the knowledge that these particular skills will be further developed during the rest of the didactic phase, and especially clinical phase (phase II) of the curriculum.

### **4-2- 6000 Graduate Seminar; Summative OSCE Assessment and Plan**

This particular OSCE is a component in our program of the comprehensive evaluation of each student before they graduate. This evaluation tool also aligns with our accreditation standards. It assessed multiple different skills across all of the organ systems that the students have learned about during their time in the program. The students are given simulated patient scenarios and are expected to synthesize the information and generate an assessment, in the form of a patient diagnosis, and generate a treatment plan for the scenarios. A single PA faculty member serves as the proctor for each skill assessed and completes a specified rubric for each student within a 5-minute time limit. Scored rubrics were compiled by the course director for PAED 6000 and reviewed by the Program Director. This assessment tool rubric is listed below as "PLO 4-2." The benchmark for this tool is that an average of 85% of students will attain "application" on the corresponding rubric, with the knowledge that these skills do not reach "mastery" level until the students are practicing PAs.

## **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)?

## **PLO 2**

**2-1- PAED 5110 Dermatology and 5130 Otolaryngology & Ophthalmology;** Didactic Objective Structured Clinical Evaluation (OSCE)

43/45 students (95.56%) received full credit on the OSCE section requiring them to synthesize pertinent history information obtained from a simulated patient setting, equating to “comprehension” on the corresponding rubric. Our benchmark for this PLO was met.

**2-2- PAED 5860 Clinical: Evidence Based Medicine Clerkship;** Clinical question oral defense

48/48 students (100%) scored at least 85/100 on their oral defense of their clinical question, equating to “mastery” on the corresponding rubric. Our benchmark for this PLO was met.

## **PLO 4**

**4-1- PAED 5250 Renal & PAED 5240 Endocrine;** Combined OSCE Assessment and Plan

40/45 students (88.89%) of students scored at least 20/25 on the OSCE section requiring them to provide an accurate treatment plan for a given medical condition, equating to “comprehension” on the corresponding rubric. Our benchmark for this PLO was met.

**4-2- 6000 Graduate Seminar;** Summative OSCE Assessment and Plan

47/48 students (97.90%) of students scored at least 16 out of 20 on the OSCE section requiring them to provide an accurate differential diagnosis for given patient complaint with limited additional information, equating to “application” on the corresponding rubric. Our benchmark for this PLO was met.

## **5. Findings: Interpretations & Conclusions**

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

Medical knowledge and related critical thinking skills are a strength of students in our program, as evidenced by this assessment data.

## **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 PLO data results were shared and discussed among faculty during a regularly scheduled program meeting on 8/18/22. We meet bi-monthly and have one section on each meeting agenda dedicated to program assessment. We reviewed the PLOs being reported on this year, reviewed the measurement tools, and then reviewed the raw data and data analysis as a group.

**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.

The data does not suggest that changes are warranted in the specific aspects assessed during this cycle. However, we will continue to teach and emphasize strong medical knowledge and critical thinking skills that our program’s students and graduates are known for.

If no changes are being made, please explain why.

Our data does not suggest changes are needed.

**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?

- 1) During the previous program assessment cycle in which PLO 2 and 4 were assess, as a program we decided to change the measurement tool for 2-1 to a point still early in the students’ didactic phase of the program, but at a time when they have been taught enough about medical conditions for the program to better assess their critical thinking capabilities.
- 2) The benchmark for PLO #2, assessment tool 2 was increased to “mastery,” which is more reflective of our expectations of students’ critical thinking skills during the clinical phase of the program.

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

Both changes were assessed as outlined in this report.

**C.** What were the findings of the assessment?

We met our benchmark for both measurement tools in both PLOs.

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

As a program, we decided as a program to continue with these current measurement tools.

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

**Appendix:**

Student Learning Outcome	Comprehension – Students will ...	Application – Students will ...	Mastery – Students will ...
<b>PLO #2</b> - Students will be able to use the critical thinking skills necessary to evaluate patient medical problems.	Generate a valid differential diagnosis based on patient information obtained.	Construct a focused patient management plan based on an accurate differential diagnosis.	Incorporate changes in clinical practice based upon current evidence-based medicine.

**PLO 2-1**

Name of Tool	Comprehension	Application	Mastery
PAED 5110 Dermatology and 5130 Otolaryngology & Ophthalmology	Students will understand the pertinent medical history questions to ask during a simulated patient encounter.	Students will be able to provide an accurate summary of pertinent history, physical exam, and	Students will be able to provide an accurate differential diagnosis for a patient scenario.

Didactic Objective Structured Clinical Evaluation (OSCE)		lab data.	
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#### PLO 2-2

Name of Tool	Comprehension	Application	Mastery
PAED 5860 Clinical: Evidence Based Medicine Clerkship  Clinical question oral defense	Students will able to develop a relevant clinical question and provide an objective variety of evidence during their oral defense.	Students will provide professional critical appraisals of all articles utilized and draw a corresponding answer to their clinical question during their oral defense.	Students will incorporate changes in clinical practice based upon the conclusion of their research related to their clinical question.

Student Learning Outcome	Comprehension – Students will ...	Application – Students will ...	Mastery – Students will ...
<b>PLO #4</b> - Students will be able to demonstrate core medical knowledge in the provision of patient care.	Describe an assessment and plan that includes the basic components.	Employ an assessment and plan that includes an accurate differential diagnosis.	Construct an assessment and plan that includes an accurate management plan.

#### PLO 4-1

Name of Tool	Comprehension	Application	Mastery
PAED 5250 Renal & PAED 5240 Endocrine Combined OSCE Assessment and Plan	Given a medical diagnosis, students will identify the proper treatment plan.	Students will accurately diagnose the specific chronic kidney disease stage of a patient and justify their answer.	Students will score >80% on the entire patient assessment and plan to include accuracy and completeness.

#### PLO 4-2

Name of Tool	Comprehension	Application	Mastery
PAED 6000 Graduate Seminar; Summative OSCE Assessment and Plan	Students will score $\geq 20/25$ on OSCE station 4, which specifically require assessment and plan data from students	Students will score $\geq 16/20$ on OSCE station 5, which specifically requires them to apply an accurate differential diagnosis for a given patient complaint.	Students will score $\geq 12/15$ on OSCE station 6, which specifically requires an accurate patient treatment plan.