

Amarillo College-Radiography Program

Outcomes Assessment Plan 2022

August 2020-August 2021

Program Mission:

To provide a comprehensive educational environment that will prepare the radiography graduate to effectively engage in the daily challenges and responsibilities required of a competent and professional entry-level radiographer.

Goal 1: Monitor Program Effectiveness (updated -10/7/2022-mgh)					
Student Learning Outcome (SLO)	Measurement Tool	Benchmark	Timeframes	Group/Person Responsible	Results
1. Students will complete the program and take the ARRT certification exam.	1. Satisfaction of all program requirements.	1. No less than 75% of students will complete the program in all required courses.	1. During the program/ Within 12 months	1. Program Director	1.N=26 started program (3 attrite/non-academic, per 6.1), 20 completed on time, 87% completion rate 2. N=21 tested, 19 passed 1 st attempt, 90.47% 1 st time pass rate
	2. Completion of the ARRT certification exam.	2. No less than 75% of graduates will successfully complete the ARRT exam on first attempt.	2. Within 6 months of graduation	2. Program Director	
2. Program will assess graduate satisfaction.	1. Item #30 from Radiography Graduate Survey.	1. Average of 4.0 (5.0 Likert).	1. Within 12 months of graduation	1. Program Director	1. Avg= 3.7, N=19 returned
3. Program will assess employer satisfaction.	1. Item #21 from Employer Survey.	1. Average of 3.0 (4.0 Likert).	1. Within 12 months of graduation	1. Program Director	1. Avg=3.84, N=13 returned
4. Program will assess employment rate.	1. Radiography Graduate Survey.	1. Within 12 months of graduation, 75% of graduates seeking employment in the field will find employment.	1. Within 12 months of graduation	1. Program Director	1. N=19 employed, 90.4% employment rate

Analysis/Revisions/Recommendations (Goal 1: Monitor Program Effectiveness):

SLO 1, Tool #1: We are pleased with the 87% completion rate in 2021. Five-year comparison: 2017: 81%, 2018: 85%, 2019: 88%, 2020: 96%, 2021: 87% 5-year average: 86.5%;

SLO 1, Tool #2: 2021 pass rate 90.47%. Since 2017, we have had no less than 83% pass rate. We continue to utilize Corectec Radiography review during RADR 2235 to help students prepare for the exit exam and the ARRT. Five-year comparison: 2017: 50%, 2018: 86%, 2019: 95%, 2020: 83%, 2021: 90.47%, 5-year average: 82%

SLO 2: Five-year comparison: For 2021, we did not meet the benchmark of 4.0 (5.0 Likert), we had an average of 3.7. Although we would like to see a better response, we continue to strive for program improvement that will meet individual needs of the students, for example we continue to implement more educational activities to help increase active student learning and retention. Critical thinking and communication skills questions were not specifically part of this measurement tool; however, both of those questions had an average response of 4.2 on the Graduate Survey, which are very important skills in the current work environment. We are pleased with the 5-year average of 4.42. 2017: 4.7, 2018: 4.86, 2019: 4.14, 2020: 4.7, 2021: 3.7; 5-year average 4.42 (5.0 Likert)

SLO 3: Employers continue to be pleased with AC graduates work performance, 2021 responses average 3.84 (4.0 Likert). Five-year comparison: 2017: 4.0, 2018: 3.91, 2019: 3.9, 2020: 3.9, 2021: 3.8; 5-year average 3.9 (4.0 Likert)

SLO 4: Five-year comparison: We continue to be pleased with the strong employment rate. 2017: 95%, 2018: 91%, 2019: 93%, 2020: 100%; 2021: 90.4%; 5-year average: 94.5%

Goal 2: Graduate will be clinically competent.					
Student Learning Outcome (SLO)	Measurement Tool	Benchmark	Timeframes	Group/Person Responsible	Results
1. Student will provide appropriate radiation safety for patients and self.	1. Item 10 from clinical evaluation	1. 95% of students will score ≥ 4.0 (5.0 Likert)	1. 3 rd & 5 th semester	1. Clinical Coordinator	1. 3 rd sem. N=44, 44 scored 5; 5 th sem. N=59, 58 scored 5, 1 scored 4 got, 100% scored ≥ 4
	2. Radiation Safety assignment RADR 2313	2. Average score of $\geq 80\%$	2. 1 st semester (FA 20)	2. Didactic instructor	2. 40% scored ≥ 80 ; N=27; Avg score=76.90
2. Students will recognize appropriate positioning skills and produce diagnostic images.	1. Item #15 from clinical evaluation	1. 95% of students will score ≥ 4.0 (5.0 Likert)	1. 5 th semester (SP 21)	1. Clinical Coordinator	1. N=59, 54 scored 5, 4 scored 4, 1 scored 3, 98.3% scored ≥ 4
	2. RADR 2235, Procedures Exam, questions (#3 (humerus), 11 (abd.), 30 (pelvis), & 35 (calcaneus))	2. $\geq 80\%$ will answer questions correctly	2. 5 th semester (SP 21)	2. Didactic instructor	2. 91.9% of questions answered correctly; N=22 took exam

Analysis/Revisions/Recommendations (Goal 2: Graduate will be clinically competent):

SLO 1, Tool #1: Benchmark surpassed, pleased with results. SLO 1, Tool #2: RADR 2313-Radiation Safety Assignment, FA 2020 was first semester with this new format, although the overall % of students scoring ≥ 80 is disappointing, we will be able to report an increase in class average in FA 2021 & FA 2022. In both FA 2021 and FA 2022, the instructor added non-graded activities to help the student better prepare for the assignment. Instructor will continue to implement learning activities to improve scores.

SLO 2, Tool #1: Benchmark surpassed, we continue to be pleased with results for this tool.; SLO 2, Tool #2. RADR 2235 Questions: There was an increase from 2020 to 2021, we are pleased with the increase; Three-year comparison: SP 2019: 88% SP 2020: 83% SP 2021: 91.9%

Goal 3: Graduate will display communication skills.					
Student Learning Outcome (SLO)	Measurement Tool	Benchmark	Timeframes	Group/Person Responsible	Results
1. Student will demonstrate verbal skills when relating to patients.	1. Item 7 & 16 from Clinical Evaluation.	1. 95% of students will score ≥ 4.0 (5.0 Likert)	1. 1 st , 2 nd , 4 th , 5 th semesters	1. Clinical Coordinator	1. 1 st sem. N=102, 80 scored 5, 22 scored 4, 100% ≥ 4 ; 2 nd sem. N=138, 117 scored 5, 21 scored 4, 100% scored ≥ 4 ; 4 th sem. N=114, 109 scored 5, 3 scored 4, 1 scored 3, 1 scored 1, 97.4% ≥ 4 ; 5 th sem. N=118, 112 scored 5, 6 scored 4, 100% ≥ 4
	2. Successful completion of Oral portion of the Patient Interview/Screening & X-ray Beam Assignment RADR 1313	2. Students will score $\geq 80\%$	2. 2 nd semester (SP 21)	2. Didactic instructor	2. 95.8% of students scored $\geq 80\%$ (n=24)
2. Student will demonstrate written communication skills.	1. Successful completion of Written portion of Case Study RADR 2305	1. Students will score $\geq 85\%$	1. 4 th semester (FA 20)	1. Didactic Instructor	1. 95.4% of students scored $\geq 85\%$ (N=22)
	2. Successful completion written portion of the Patient Interview/Screen & X-ray Beam Assignment RADR 1313	2. Students will score $\geq 80\%$	2. 2 nd semester (SP 21)	2. Didactic Instructor	2. 100% of students scored $\geq 80\%$ (n=24)

Analysis/Revisions/Recommendations (Goal 3: Graduate will display communication skills):

SLO 1, Tool #1: Benchmark was surpassed, in the 4th semester, there was two students who scored <4, J. Smith continues to utilize a role-playing activity during the 1st 5 weeks for RADR 1167 (Practicum I) to help with student communication skills. SLO 1, Tool #2: Benchmark surpassed, we continue to be pleased with student outcomes for this tool.

SLO 2, Tool #1: Benchmark surpassed. In fall 2022, to better assess student learning this assignment will be modified. We will track new data beginning 2022; SLO 2, Tool #2: The assignment from this tool is still relatively new, however, we are pleased with the 100% success in 2020 and 2021.

Goal 4: Graduate will display critical thinking/problem-solving skills.					
Student Learning Outcome (SLO)	Measurement Tool	Benchmark	Timeframes	Group/Person Responsible	Results
1. Students will be able to evaluate radiographic images for acceptability.	1. Image Acceptability/Critique Assignment RADR 1202 & RADR 1250	1. The students will score an $\geq 85\%$ in 1202 and average score of $\geq 90\%$ in 1250	1. 3 rd semester & 5 th semester (SU 21)	1a. Didactic instructor	1. Results: SP 2021 (5 th semester) RADR 1250 Overall average: 82.4 (N=23). #1: 2 scored $\geq 90\%$; #2: 8 scored $\geq 90\%$; #3: 9 scored $\geq 90\%$; #4: 5 scored $\geq 90\%$ Results SU 2021 (3 rd semester) RADR 1202 Overall average: 83.21% (N=24) #1: 21 scored less than 85%; #2: 3 scored less than 85%; #3: 11 scored less than 85%; #4: 8 scored less than 85%
	2. Item #9 on Clinical Evaluation in Practicum V	2. 95% of students will score ≥ 4.0 (5.0 Likert)	2. 5 th semester	2. Clinical Coordinator	2. N=59, 48 scored 5, 11 scored 4, 100% ≥ 4
2. Students will demonstrate adaptive behavior for critical or stressful scenarios.	1. Item 11 on Clinical Evaluation in Practicum V	1. 95% of students will score ≥ 4.0 (5.0 Likert)	1. 5 th semester	1. Clinical Coordinator	1. N=59, 54 scored 5, 5 scored 4; 100% scored ≥ 4
	2. Successful completion of Oral portion of Case Study RADR 2305	2. The student will score $\geq 85\%$	2. 4th semester (FA 20)	2. Didactic Instructor	2. 90.9% of students scored $\geq 85\%$ (N=22)

Analysis/Revisions/Recommendations (Goal 4: Graduate will display critical thinking/problem-solving skills):

SLO 1, Tool #1. The measurement tools in RADR 1202 & 1250 benchmark was not met in 2021. The assignment has been modified over the last few years to better assess student learning, which has been met with some challenges. For improvement, instructor will continue to increase pre-evaluation activities to better prepare the students for the graded evaluations. SLO 1, Tool #2. The department is pleased with these results. Five-year comparison: SP 2017: 100%; 2018: 100%; SP 2019: 98.4%; SP 2020: 100%; SP 2021 scored no less than 4 (5.0 Likert)

SLO 2, Tool #1: We strive to have students demonstrate adaptive behavior in critical/stressful scenarios, therefore we are pleased with the result of 100% ≥ 4 and the three-year comparison, SP 2019: 100%, SP 2020: 100%, SP 2021 100% scored ≥ 4 . SLO 2, Tool #2: We are pleased with the results, however, to better measure this SLO, the instructor is considering to modify the oral portion of this assignment beginning in FA 2023. Three-year comparison: FA 2018: 95%, FA 2019: 95%, FA 2020 90.9% scored $\geq 85\%$

Goal 5: Graduate will exhibit professional development.					
Student Learning Outcome (SLO)	Measurement Tool	Benchmark	Timeframes	Group/Person Responsible	Results
1. Students will be able to demonstrate conduct as outlined in the ARRT "Code of Ethics".	1. Item 14 on Clinical Evaluation in Practicum V	1. 95% of students will score ≥ 4.0 (5.0 Likert)	1. 5 th semester	1. Clinical Coordinator	1. N=59, 59 scored 5, 100% scored ≥ 4
	2. RADR 1203, Pre-selected questions on Exam 4	2. Students will score $\geq 80\%$	2. 1 st semester (FA 20)	2. Didactic Instructor	2. 94.6% of questions were answered correctly (N=26)
2. Students will be able to differentiate between various modalities and professional organizations.	1. RADR 1201 Pre-selected questions on Exam #1	1. Students will score $\geq 80\%$	1. 1 st semester (FA 20)	1. Didactic Instructor	1. 87.6% questions answered correctly (N=23)
	2. RADR 2309-Will complete modality paper	2. Students will score $\geq 85\%$	2. 4 th semester (FA 20)	2. Didactic Instructor	2. 90.9 % of students scored $\geq 85\%$ (N=22)

Analysis/Revisions/Recommendations (Goal 5: Graduate will exhibit professional development):

SLO 1, Tool #1: We continue to be pleased with these results. Three-year comparison: SP 2019: 100%; SP 2020, SP 2021 100%: 100% scored ≥ 4.0 . SLO 1, Tool #2. We are pleased with this relatively new measurement tool (started FA 2019) Comparison data: 2019: 90.9%, 2020: 94.6% answer correctly

SLO 2, Tool #1: We are pleased with the results for this tool, we saw an increase from FA 2019 74% questions answered correctly to FA 2020 87.6% questions answered correctly. SLO 2, Tool #2: There was a slight dip in overall % in FA 2020, however the benchmark was still surpassed. To better assess the student learning, in FA 2022, this assignment will be modified. New data to be collected. Three-year comparison: FA 2018: 100%; FA 2019: 96% FA 2020: 90.9% scored $\geq 85\%$