NORTHWESTERN STATE
College of Nursing and School of Allied Health

Bachelor of Science in Radiologic Sciences

Division or Department: School of Allied Health

Assessment Year: 2022

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Approved by: Dr. Joel Hicks, Dean **Date: June 9, 2023**

Northwestern State University Mission Statement: Northwestern State University is a responsive, student-oriented institution committed to acquiring, creating, and disseminating knowledge through innovative teaching, research, and service. With its certificate, undergraduate, and graduate programs, Northwestern State University prepares its increasingly diverse student population to contribute to an inclusive global community with a steadfast dedication to improving our region, state, and nation.

College of Nursing and School of Allied Health Mission Statement: Northwestern State University College of Nursing and School of Allied Health serves an increasingly diverse student population while advancing the mission of the University by offering excellent and innovative undergraduate, graduate, certificate, and continuing education programs that are designed to assist individuals in achieving their goal to become responsible and contributing members of an interprofessional global community that improves the health of our region, state, and nation.

Bachelor of Science in Radiologic Sciences Purpose and Objectives:

BSRS Program Purpose. To provide students with the education and skills to function as an integral part of the health care community and the opportunity for advancement in the allied health professions.

- To provide opportunities that will enhance the development of roles in the radiologic sciences professions.
- To provide a foundation for radiologic science professionals to become lifelong learners and to strive for continued professional growth.

BSRS Program Objectives. Graduates of the BSRS program should be able to:

- Perform quality radiographic procedures.
- Develop assessment skills of a radiographer.
- Evaluate a clinical situation and perform accordingly using critical thinking skills.
- Critically evaluate and assess challenges within the healthcare administrative setting.
- Demonstrate an understanding of professional advocacy.
- Integrate adherence to professional behaviors.
- Develop oral communication skills.
- Develop written communication skills.

Methodology

1. Data from assessment tools are collected and sent to the program director.
2. Data is collected during the spring, summer, and fall semesters of a calendar year.
2. The program director enters the data into the tables for each SLO.
3. The results are shared with the BSRS Assessment Committee. The committee discusses data analysis, interpretation, actions, trends, results, and future plans.
4. The BSRS Assessment committee findings are discussed in the School of Allied Health faculty meetings. Additional insights and actions are added to the assessment plan as necessary.

Student Learning Outcomes.

Goal 1: Students will be clinically competent radiologic technologists

Student Learning Outcome	Tool	Measure	Results
1.1 Students will perform quality radiographic procedures.	A. RADS 4611 ***(Fall Semester)*** Clinical Preceptor Evaluation of Student Q16: Quality of work and performance	100% of students will achieve a score of 85 or higher on the quality of work and performance question.	
	B. RADS 3820 ***(Fall Semester)*** Comprehensive Lab Final Exam	100% of students will achieve a score of 77 or higher.	
	B.		

	2022	2021	2020	2019	2018
N	34	43	28	33	41
Met	33	43	28	33	41
Mean	96.11	96.4	3.96	4.77	4.56
Range	84-100	87-100	3.5-4.3	4.3-5	3.5-5
%	97	100	100	100	100

	2022	2021	2020	2019	2018
N	52	43	44	31	33
Met	44	30	29	13	15
Mean	84	81	87	82.5	83.03
Range	65-97	62-98	69-98	71-99	70-95
%	84	70	66	42	45

Student Learning Outcome	Tool	Measure	Results
1.2 Students will develop the assessment skills of a radiographer.	A. ALHE 3840 ***(Fall Semester)*** Student average of all Assessment Tests in ALHE 3840	100% of students will achieve a mean score of 80 or higher on all Assessment Tests.	
	B. RADS 3820 ***(Fall Semester)*** Trauma Lab Exam	100% of students will achieve a score of 77 or higher.	

	2022	2021	2020	2019	2018
N	48	44	45	32	32
Met	45	44	38	32	30
Mean	91.02	93	87	97	95
Range	65.28-98.33	80-100	63-99	80-100	60-100
%	93.75	100	84	100	94

	2022	2021	2020	2019	2018
N	52	43	44	31	43
Met	48	38	42	29	38
Mean	90.8	89.5	92.1	89.5	93
Range	60-100	66-100	78-100	63-100	75-100
%	92	88	95	94	88

SLO: 1.1 Students will perform quality radiographic procedures. Throughout clinical and didactic courses, students will learn about the importance of performing quality radiographic procedures. Each student is required to pass RADS 4611 to progress to the next semester. The target is to have 100% of students score 85% or higher on the Clinical Preceptor evaluation for the first measure and score a 77% or higher on the comprehensive lab final exam in RADS 3820 for the second measure.

Findings: Both targets were unmet for Measures A and B.

Analysis: SLO: 1.1 Students will perform quality radiographic procedures.	
Measure A: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q16: Quality of work and performance	**Measure B: RADS 3820 (Positioning II): Comprehensive Lab Final Exam**
2022: Unmet – only 97% of students achieved 85% or higher	2022: Unmet – only 84% of students achieved 77% or higher
2021: Met – 100% of students achieved 85% or higher.	2021: Unmet – only 70% of students achieved 77% or higher.
2020: Met—100% of students achieved 3.5 or higher	2020: Unmet—only 66% of students achieved 85% or higher
2019: Met—100% of students achieved 3.5 or higher.	2019: Unmet—only 42% of students achieved 85% or higher.
2018: Met—100% of students achieved 3.5 or higher.	2018: Unmet—only 45% of students achieved 85% or higher.

Measure A: RADS 4611: Clinical Preceptor Evaluation of Student Q16: Quality of work and performance: In 2022, the target was not met, indicating that almost all students demonstrated a suitable quality of work and performance; 97% of students (33 of 34) scored 85% on the Clinical Preceptor evaluation of student performance. This measure is obtained from clinical student evaluations and quantifies the students' quality of work and performance in the clinical setting. Even though this measure has been met for the past 5 years, faculty will strive to improve the scores to the previous 100% score.

Based on the analysis of the 2021 results, in 2022 in addition to the current strategies, the faculty will review submitted clinical evaluations to drive the cycle of improvement. Any students scoring below 85% on an evaluation will be called in for a counseling session regarding the quality of work and performance. The clinical

evaluation form was edited to obtain better feedback from the clinical preceptors evaluating the students. If the clinical preceptor selects average, below average, or unsatisfactory, the form will prompt the preceptor to provide feedback/comments as to why the student scored below the benchmark of above average. This will provide faculty with data for areas of improvement for the student.

Even though in 2022, the target was not met, 97% of students (33 of 34 students) scored 85% or higher on the Clinical Preceptor evaluation referring to student work and performance, indicating that majority of students were demonstrating a suitable quality of work and performance. The faculty believe these changes still had a direct impact on the student's ability to produce quality work and performance and will continue to improve the scores to the previous 100% rate.

Measure B: RADS 3820 (Positioning II): Comprehensive Lab Final Exam: In 2022, the target was unmet. The target is to have 100% of the students score 77% or higher on the comprehensive lab final exam. In 2022, only 84% of the students scored 77% or higher, specifying that 16% of the students did not successfully displAC quality radiographic procedures during the comprehensive lab final exam. This measure focuses on the students' ability to perform quality radiographic procedures through a simulated positioning lab exam in the students' second level of the radiographic procedures course.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. The faculty adjusted the benchmark to align with the seven-point grading scale currently utilized within the course. Students must score a 77% or higher on each exam to pass. The faculty integrated the ASRT professional video series on positioning and image critique and RadTech BootCamp as learning resources. Students must purchase the RadTech BootCamp product, review the material posted, and take the quizzes and exams for a course grade. Also, additional "open lab" sessions were added for practice sessions. Due to class size, labs were reconfigured into two sections to have fewer students in each section, increasing students' opportunities to practice during lab time.

As a result of these changes, in 2022, the target was still unmet; 100% of students did not score 77% or higher on the comprehensive lab final exam. Only 84% of the students scored 77% or higher; however, this was an improvement over the previous years; in 2021, when only 70% of students met the goal. While there is still room for improvement, these changes had a direct impact on the student's ability to perform quality radiographic procedures.

Decisions: In 2022**,** the target was unmet for measures A and B.

Measure A: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following activities in 2023 to drive the cycle of improvement:

1. Faculty edited the clinical evaluation template to prompt clinical preceptors to give comment/feedback if scoring the student for average, below average, or unsatisfactory on evaluation.
2. Frequent interaction between faculty members and students. This interaction will reinforce to the student the
   importance of producing quality work.
3. Discussion forum posting in Moodle. This post will ask about clinical procedures and create dialog regarding performing quality procedures. Faculty members will post prompts to encourage discussion. This discussion board will provide students with another mechanism to discuss their work and performance with both faculty and peers. Positive dialog and constructive criticism can then be offered to help the student perform better in the clinical setting.
4. Faculty review evaluation scores and counsel any student scoring below 85% on work and performance quality.

Measure B: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Students will be required to attend tutoring if they are unsuccessful on previous lab tests before the comprehensive final exam.
2. The tutor will be asked to integrate the use of ASRT professional video series on positioning and image critique.
3. The students will also be expected to utilize these videos on their own in preparation for the final lab exam.
4. Students will be required to complete assignments in RadTech Bootcamp as part of the test remediation if they are unsuccessful on lab tests leading up to final exam.
5. Additional “open lab” practice opportunities will be scheduled.
6. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.

7. Due to the class size of the current cohort, the lab will be scheduled twice a week into two sections to have fewer students in each section. This should increase students' opportunities to practice during lab time.

These changes will improve the students' ability to perform quality radiographic procedures, thereby pushing the cycle of improvement forward.

SLO: 1.2 Students will develop the assessment skills of a radiographer. Throughout the clinical and didactic courses, students will learn the assessment skills needed for a radiographer. Each student is required to pass the classes to progress to the next semester. The target is to have 100% of the students score 80% or higher on the multiple assessment tests for measure A and score 77% or higher on the trauma lab scenario test in RADS 3820 for measure B.

Findings: The Targets were unmet for Measures A and B.

Analysis: SLO: 1.2 Students will develop the assessment skills of a radiographer.	
Measure A: ALHE 3840 (Advanced Patient Care): Overall Assessment Tests	**Measure B: RADS 3820 (Positioning 2): Trauma lab scenario**
2022: Unmet- only 93.75 % of students achieved 80% or higher.	2022: Unmet – only 92% of students achieved 77% or higher.
2021: Met – 100% of students achieved 80% or higher.	2021: Unmet – only 88% of students achieved 77% or higher.
2020: Unmet—only 84% of students achieved 80% or higher	2020: Unmet—only 95% of students achieved 85% or higher
2019: Met—100% of students achieved 80% or higher.	2019: Unmet—only 94% of students achieved 85% or higher.
2018: Unmet—only 94% of students achieved 85% or higher.	2018: Unmet—only 91% of students achieved 85% or higher.

Measure A: ALHE 3840 (Advanced Patient Care): Overall Patient Assessment Tests: In 2022, the target was unmet, indicating that not all students achieved an 80% or higher on the assessment tests.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement: The discussion forums were revised to focus on patient assessment. Additionally, the open resource material used in the course was updated with the most current information, including links to multiple online resources, video demonstrations, and material specific to the radiologic sciences profession.

As a result of these changes, the target was still unmet; only 93.7% of students scored 80% or higher on the overall patient assessment tests in ALHE 3840. In reviewing the individual students' progress, the three students who did not meet this measure was because they missed taking one or more of the exams. On the other assessments that these three students did complete, the students successfully mastered the content and achieved an average above an 80.

In 2023, the faculty will make the following changes. Faculty will revisit the late policy and clarify extenuating circumstances. Faculty will send out assignment deadline reminders. Faculty discussed that when students miss taking an exam, then their skills are not really being assessed; therefore, the measure will be revisited concerning only averaging the exams taken.

Measure B: RADS 3820 (Positioning II): Trauma Lab Scenario: In 2022, the target was unmet. The target is to have 100% of the students score 77% or higher on the trauma lab scenario exam. Only 92% of students scored 77% or higher on the trauma lab exam. This measure focuses on the students' ability to perform quality radiographic procedures through a simulated positioning lab exam in the students' second level of the radiographic procedures course.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Faculty introduced trauma content to students earlier in the program. Students were required to view the videos before the trauma lab exam. Due to the class size, the lab was reconfigured into two sections to have fewer students in each section, increasing student opportunities to practice. The faculty also added an additional "open lab" for practice sessions.

Even with these changes, in 2022, the target was unmet; 92% of students scored 77% or higher on the trauma lab scenario exam. While there is still room for improvement, these changes had a direct impact on the student's ability to develop the patient assessment skills of a radiographer.

Decisions:
In 2022**,** the targets for measures A and B were unmet.

Measure A: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Faculty will revisit the late policy and clarify extenuating circumstances.
2. Faculty will send out assignment deadline reminders.

3. Faculty discussed that when students miss taking an exam, then their skills are not really being assessed; therefore, the measure will be revisited concerning only averaging the exams taken.

Measure B: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Students will be required to attend tutoring if they are unsuccessful on previous lab tests in both RADS 3310 and 3820 before the trauma lab exam is given.
2. The tutor will be asked to integrate the use of ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos on their own in preparation for the final lab exam.
3. Students will be required to complete assignments in RadTech Bootcamp as part of the test remediation if they are unsuccessful on lab tests leading up to the trauma lab exam.
4. Additional “open lab” practice opportunities will be scheduled.
5. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
6. Due to the class size of the current cohort, the lab will be scheduled twice a week into two sections to have fewer.
   students in each section. This should increase students’ opportunities to practice during lab time.
7. Trauma content will be moved earlier in the program in RADS 3310 and RADS 3820 for repeated exposure before the trauma lab exam.

These changes will improve the students’ ability to develop the assessment skills of a radiographer.

Goal 2: Students will demonstrate critical thinking skills.

Student Learning Outcome	Tool	Measure	Results
2.1 Students will evaluate a clinical situation and perform accordingly using critical thinking skills.	A. **RADS 3820** (Fall Semester) Trauma Lab Exam	100% of students will achieve a score of 77 or higher.	
	B. RADS 3911 ***(Spring)*** Clinical Preceptor Evaluation of Student Q17: Adapt Routine to Patient Condition	100% of students in RADS 3911 will achieve an average score of 85% or higher on the adapt routine to patient condition question.	

	2022	2021	2020	2019	2018
N	52	43	44	31	33
Met	48	38	42	29	30
Mean	90.8	89.5	92.1	89.5	97
Range	60-100	67-100	78-00	70-99	77-100
%	92	88	95	94	91

	2022	2021	2020	2019	2018
N	34	42			
Met	34	41	New Measure for 2021		
Mean	94.48	93.7			
Range	86-100	78-100			
%	100	98			

Student Learning Outcome	Tool	Measure	Results
2.2 Students will critically evaluate and assess challenges within the healthcare administrative setting.	A. ALHE 4610 ***(Spring Semester)*** QM Proposal Project	100% of students will achieve a score of 80 or higher.	
	B. ALHE 4630 ***(Spring Semester)*** Management Case Study Project	100% of students will achieve a score of 80 or higher.	

	2022	2021	2020	2019	2018
N	55	42	29	35	41
Met	48	37	28	34	33
Mean	87.63	89.54	85.69	90.25	88.7
Range	63-100	60-100	55-100	73-100	0-100
%	87	88	97	97	80

	2022	2021	2020	2019	2018
N	No data due to COVID	29	33	41	25
Met		29	33	41	25
Mean		97	96.39	92.9	88
Range		93-100	80-100	85-100	85-100
%		100	100	100	100

SLO: 2.1 Students will evaluate a clinical situation and perform accordingly using critical thinking skills. Throughout the clinical and didactic courses, students will learn to evaluate a clinical situation and perform accordingly using critical thinking skills. Each student is required to pass the course in order to progress to the next semester. The target is to have 100% of students score a 77% or higher on the trauma lab

simulation exam and 85% or higher on the Clinical Preceptor evaluation of students' ability to adapt to the patient's condition.

Findings: The target was unmet for Measure A and met for Measure B.

Analysis: SLO: 2.1: Students will evaluate a clinical situation and perform accordingly using critical thinking skills.	
Measure A: RADS 3820 (Positioning 2): Trauma lab scenario	**Measure B: RADS 3911 (Clinic III): Clinical preceptor evaluation of student Q17: Adapt routine to patient condition**
2022: Unmet- only 92% of students achieved 77% or higher	2022: Met – 100% of students achieved 85% or higher
2021: Unmet – only 88% of students achieved 77% or higher	2021: Unmet – only 98% of students achieved 85% or higher
2020: Unmet—only 95% of students achieved 85% or higher	2020: Data not available
2019: Unmet—only 94% of students achieved 85% or higher	2019: Data not available
2018: Unmet—only 91% of students achieved 85% or higher	2018: Data not available

Measure A: RADS 3820 (Positioning II): Trauma lab scenario: In 2022, the target was unmet. The target is to have 100% of the students score 77% or higher on the trauma lab scenario exam. Only 92% of students scored 77% or higher on the trauma lab. This measure focuses on the students' ability to perform quality radiographic procedures through a simulated positioning lab exam in the students' second level of radiographic procedures course.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Faculty introduced trauma content to students earlier in the program. Students were required to view the videos before the trauma lab exam. Due to the class size, the lab was reconfigured into two sections to have fewer students in each section, increasing student opportunities to practice. The faculty also added an additional "open lab" for practice sessions.

Even with these changes, in 2022, the target was unmet; 92% of students scored 77% or higher on the trauma lab scenario exam. While there is still room for improvement, these changes had a direct impact on the student's ability to develop the patient assessment skills of a radiographer.

Measure B: RADS 3911 (Clinic III): Clinical Preceptor Evaluation of Student Q17: Adapt Routine to Patient Condition: In 2022, the target was met; 100% of students scored 85% or higher on the Clinical Preceptor evaluation measuring the student's ability to adapt the routine to the patient's condition.

Based on the analysis of the 2021 assessment results, the faculty made the following changes in 2022 to drive the cycle of improvement. In previous years, one tool was used to measure this SLO which was an assignment within RADS 4510 (Professional Imaging Practices). Due to changes within that course, the faculty changed the tool to the clinical preceptor evaluation in RADS 3911 as it was more reflective of the student's ability to demonstrate critical thinking skills within the clinical situation. These changes had a direct impact on the student's ability to evaluate a clinical situation and perform accordingly using critical thinking skills.

Decisions:
In 2022**,** the target was unmet for measure A and met for measure B.

Measure A: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Students will be required to attend tutoring if they are unsuccessful on previous lab tests in both RADS 3310 and 3820 before the trauma lab exam is given.
2. The tutor will be asked to integrate the use of ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos on their own in preparation for the final lab exam.
3. Students will be required to complete assignments in RadTech Bootcamp as part of the test remediation if they are
   unsuccessful on lab tests leading up to trauma lab exam.
4. Additional "open lab" practice opportunities will be scheduled.
5. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
6. Due to the class size of the current cohort, the lab will be scheduled twice a week into two sections to have fewer
   students in each section. This should increase students' opportunities to practice during lab time.
7. Trauma content will be moved earlier in the program in RADS 3310 and RADS 3820 for repeated exposure before the trauma lab exam.

These changes will improve the students' ability to develop the assessment skills of a radiographer.

Measure B: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Faculty will review evaluation scores and counsel any student scoring below 85% on the adapt routine to patient condition question.

These changes will improve the students' ability to evaluate a clinical situation and perform accordingly using critical thinking skills, thereby continuing to push the cycle of improvement forward.

SLO: 2.2 Students will critically evaluate and assess challenges within the healthcare administrative setting. Throughout the clinical and didactic courses, students will learn to evaluate a clinical situation and perform accordingly using critical thinking skills. Each student is required to pass the course in order to progress to the next semester. The target is to have 100% of students score an 80% or higher on the quality control project and an 80% or higher on the case study project. The SLO was revised to reflect a more accurate description of what is measured. The tools and benchmarks were not changed, only the wording of the SLO.

Findings: Target was unmet for Measure A. Due to the restrictions during the COVID pandemic, no data were obtained
for Measure B in 2022 due to temporarily moving the course earlier in the curriculum. The course was taught in 2021 instead of 2022.

Analysis: SLO: 2.2 Students will critically evaluate and assess challenges within the healthcare administrative setting.	
Measure A: ALHE 4610 (Healthcare Quality): QC Project	**Measure B: ALHE 4630 (Healthcare Organization Management: (Case Study Project)**
2022: Unmet- only 87% of students achieved 80% or higher	**2022:** No data due to COVID
2021: Unmet – only 88% of students achieved 80% or higher	**2021:** Met – 100% of students achieved 80% or higher
2020: Unmet—only 97% of students achieved 80% or higher	**2020:** Met—100% of students achieved 80% or higher
2019: Unmet—only 97% of students achieved 80% or higher	**2019:** Met—100% of students achieved 80% or higher

2018: Unmet—only 80% of students achieved 80% or higher	**2018:** Met—100% of students achieved 80% or higher

Measure A: ALHE 4610 (Healthcare Quality): QM Project: In 2022, the target was unmet. The target is to have 100% of the students score 80% or higher on the quality management project. Only 87% of the students scored 80% or higher.

Based on the analysis of the 2021 assessment cycle results, the faculty made the following changes in 2022 to drive the cycle of improvement. The course was revised to meet Quality Matters guidelines, and the components of the QM project were threaded throughout the course. Students were given multiple opportunities to incorporate feedback prior to submitting the final project.

As a result of these changes, in 2022, the target was still unmet; 100% of students did not score 80% or higher on the quality management project. The results were similar to 2021. In examining the students who performed below the benchmark, it appeared that they did not spend adequate time on the project. They made multiple errors throughout the proposal.

Measure B: ALHE 4630 (Healthcare Organization and Management): Case Study Project: Due to the impact of the COVID pandemic and restrictions in place to mitigate its spread, ALHE 4630 was temporarily approved to teach earlier in the curriculum when the students were mandated to stAC at home. Normally this course is taught in the Spring; however, ALHE 4630 was taught in Fall of 2021. As a result, there is no data for this tool in 2022.

Moving forward in 2023, ALHE 4630 course offering will be taught during Spring 2023 which is on the current approved curriculum.

Decisions: In 2022**,** the target was unmet for measure A. There was no data for measure B due to COVID pandemic.

Measure A: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Post multiple announcements encouraging students to begin work on their proposals early to allow adequate time to create a quality proposal.
2. Encourage students to reach out to the instructor for feedback or help during the development of the proposal.

Measure B: While no data was obtained due to COVID restrictions, faculty will revisit the analysis of the 2021 assessment cycle results, and implement the following changes in 2023 to drive the cycle of improvement:

1. Provide a discussion board forum to allow students to post questions related to the assignment.
2. Integrate a video to explain the assignment in detail.
3. Increase the number of case studies offered.
4. Faculty will make frequent announcements and reminders in the class about the due dates of assignments.

These changes will improve the students' ability to critically evaluate and assess challenges within the healthcare administrative setting.

Goal 3: Students will demonstrate an understanding of professionalism.

Student Learning Outcome	Tool	Measure	Results
3.1 Students will demonstrate an understanding of professional advocacy.	A. RADS 3311 and 4511 ***(Summer Semester)*** Students will reflect professional advocacy by participating in professional activities beyond the practice setting.	25% of students will demonstrate involvement in professional associations (LSRT or ASRT) by official membership, attending meetings, or participating in competitive events.	See table below
	B. ALHE 3840 ***(Fall Semester)*** Service-Learning Project	100% of students will achieve a score of 80 or higher.	See table below

	2022	2021	2020	2019	2018
N	82	43			
Met	30	23	New Measure for 2021		
Mean	N/A	N/A			
Range	N/A	N/A			
%	36	53			

	2022	2021	2020	2019	2018
N	31	46	No data due to COVID	33	New Measure for 2019
Met	31	42		33	
Mean	98.06	96		99	
Range	80-100	50-100		95-100	
%	100	91		100	

Student Learning Outcome	Tool	Measure	Results
3.2 Students will integrate adherence	A. RADS 4611 ***(Fall):*** Clinical Preceptor Evaluation of Student	100% of students will achieve an average score of 90 or higher	See table below

	2022	2021	2020	2019	2018
N	34	43	28	33	41
Met	34	43	25	29	40

to professional behaviors.	Q2: Professional Behavior	on Clinical Preceptor Evaluations.	
	B. RADS 3911 ***(Spring)***: Clinical Preceptor Evaluation of Student Q2: Professional Behavior	100% of students will achieve an average score of 90 or higher on Clinical Preceptor Evaluations.	

Mean	98.39	98.4	4.22	4.83	4.71
Range	92-100	90-100	3.91-5	3.6-5	3-5
%	100	100	89	88	98

	2022	**2021**	**2020**	**2019**	**2018**
N	34	42	29	30	41
Met	34	41	24	30	40
Mean	98.18	97.9	4.48	4.68	4.88
Range	92-100	85-100	3.99-5	4-5	3-5
%	100	98	83	100	97

SLO: 3.1 Students will demonstrate an understanding of professional advocacy. Throughout the clinical and didactic courses, students will learn to demonstrate service to the profession and the community. Each student is required to pass the course in order to progress to the next semester. Based on accreditation guidelines and curriculum standards, the SLO was revised to include professional advocacy as a component of professionalism. Due to these changes, the tool used for SLO 3.1 was adjusted to measure student engagement within professional associations. The target is to have 25% of students demonstrate involvement in professional associations and score an 80% or higher on the reflection of the service-learning project.

Findings: Targets were met for Measures A and B.

Analysis: SLO: 3.1 Students will demonstrate an understanding of professional advocacy.	
Measure A: RADS 4511: Student involvement in professional associations (LSRT or ASRT)	**Measure B: ALHE 3840 (Advanced Patient Care): Service-Learning Project**
2022: Met – 36% of students demonstrated involvement in professional associations	2022: Met – 100% of students achieved 80% or higher
2021: Met – 53% of students demonstrated involvement in professional associations	2021: Unmet – Only 91% of students earned 80% or higher
2020: Data not available	2020: No data due to Covid 19
2019: Data not available	2019: Met—100% of students achieved 85% or higher
2018: Data not available	2018: Data not available

Measure A: RADS 4511 (Clinic IV): Student Demonstrated Involvement in Professional Associations. In 2022, the target was met; 36% of students demonstrated involvement in professional associations within the

radiologic technology industry. The Louisiana Society of Radiologic Technologists (LSRT) and the American Society of Radiologic Technologists (ASRT) offer student memberships and provide tailored resources and opportunities to engage students in professional advocacy. In addition to student membership in these professional associations, students are invited to attend special workshops and competitions, including a summer conference. Attending the LSRT annual conference is not mandatory; however, the faculty explain the importance of professional associations and efforts to advocate for the profession. The LSRT and ASRT provide education and updates related to potential government policies impacting radiology.

As a result of these changes, in 2022, the target was met with 36% of students demonstrated involvement in professional associations by engaging with the LSRT and/or the ASRT by membership, conference attendance, or participating in a competitive event during the conferences. Even though the target was met, there was a decrease in the number of students who participated in professional associations. As a result, faculty discussed adding professional involvement as part of their clinical grade. These changes had a direct impact on the student's ability to demonstrate an understanding of professional advocacy.

Measure B: ALHE 3840 (Advanced Patient Care): Service-Learning Project: In 2022, the target was met. The target is to have 100% of students achieve an 80% or higher on the service-learning project. This measure asks students to demonstrate service to the profession and community.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Faculty implemented the revised guidelines for the assignment along with a video with the expectations of the assignment.

As a result of these changes, in 2022, the target was met; 100% of students scored 80% or higher on the service-learning project.

Decisions: In 2022**,** the target was met for measures A and B.

Measure A: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Faculty are requiring students to obtain a membership with LSRT.
2. Faculty are requiring students to participate in LSRT competitive events. Students can choose from one of three competitions which will count toward their clinical grade.
3. Faculty will offer incentives to students in exchange for attending LSRT/ASRT conferences, participating in competitive events, and volunteering for student leadership opportunities.
4. Faculty will facilitate review and prep sessions for LSRT student competitions.

Measure B: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Faculty will recommend and approve service-learning project focus.
2. Faculty will provide weekly announcements reminding students of upcoming due dates and assignment criteria.
3. Faculty will recommend students to watch the video within the course detailing project requirements and clarifying assignment components and reach out if they have any questions.

These changes will improve the students' ability to demonstrate an understanding of professional advocacy, thereby continuing to push the cycle of improvement forward.

SLO: 3.2 Students will integrate adherence to professional behaviors. Throughout clinical and didactic courses, students will learn about the importance of professional behaviors. Each student is required to pass RADS 3911 (Clinic 3) and RADS 4611 (Clinic 5) to progress to the next semester. The target is to have 100% of students score an average of 90% or higher on the Clinical Preceptor evaluation of professional behavior for each measure.

Findings: The targets for Measure A and Measure B were met.

Analysis: SLO: 3. 2 Students will integrate adherence to professional behaviors.	
Measure A: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q2: Professional Behavior	**Measure B: RADS 3911 (Clinic 3): Clinical Preceptor Evaluation of Student Q2: Professional Behavior**
2022: Met- 100% of students achieved 90% or higher	2022: Met – 100% of students achieved 90% or higher
2021: Met – 100% of students achieved 90% or higher	2021: Unmet – only 98% of students achieved 90% or higher
2020: Unmet—only 89% of students achieved 4.0 or higher	2020: Unmet—only 83% of students achieved 4.0 or higher
2019: Unmet—only 88% of students achieved 4.0 or higher	2019: Met—100% of students achieved 4.0 or higher
2018: Unmet—only 98% of students achieved 4.0 or higher	2018: Unmet—only 97% of students achieved 4.0 or higher

Measure A: Students will integrate adherence to professional behaviors (RADS 4611). In 2022, the target was met. The target is to have 100% of the students score 90% or higher on the quality control project.

Based on the analysis of the 2021 assessment cycle results, the faculty made the following changes in 2022 to drive the cycle of improvement. Frequent interaction between faculty members and students was utilized, reinforcing the importance of producing quality work and the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings. In addition, the faculty reviewed evaluation scores and counseled any student scoring below 90% on the quality of work and performance.

As a result of these changes, in 2022, the target was met; 100% of students scored 90% or higher on the Clinical Preceptor Evaluation of professional behavior. These changes had a direct impact on the student's ability to adhere to professional behaviors, thereby continuing to push the cycle of improvement forward.

Measure B: Students will integrate adherence to professional behaviors (RADS 3911). In 2022, the target was met; 100% of students scored 90% or higher on the Clinical Preceptor evaluation of student professional behavior.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Frequent interaction between faculty members and students to reinforce to the student the importance of producing quality work. Faculty reviewed submitted evaluations, and any student scoring below 90% on an evaluation will be called in for a counseling session regarding the quality of work and performance.

As a result of these changes, in 2022, the target was met.

Decisions: In 2022**,** the targets were met for measures A and B.

Measure A: **RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q2: Professional Behavior.** Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Frequent interaction between faculty members and students will continue to be utilized. This interaction will reinforce to the student the importance of producing quality work.
2. Faculty will review evaluation scores and counsel any student scoring below 90% on the quality of work and performance.
3. Accentuate the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings.

Measure B: RADS 3911 (Clinic 3): Clinical Preceptor Evaluation of Student Q2: Professional Behavior.
Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Frequent interaction between faculty members and students will continue to be utilized. This interaction will reinforce to the student the importance of producing quality work.
2. Faculty will review evaluation scores and counsel any student scoring below 90% on the quality of work and performance.
3. Accentuate the importance of adherence to the ASRT Practice Standards and the ARRT Codes of Ethics in class and clinical settings.

These changes will improve the students' ability to adhere to professional behaviors, thereby continuing to push the cycle of improvement forward.

Goal 4: Students will demonstrate the ability to communicate effectively.

Student Learning Outcome	Tool	Measure	Results
4.1 Students will develop oral communication skills.	A. RADS 4611 ***(Fall)***: Clinical Preceptor Evaluation of Student Q4: Communication with patients	100% of students will achieve an average score of 90 or higher on Clinical Preceptor Evaluations.	
	B. RADS 4611 ***(Fall)***: Clinical Preceptor Evaluation of Student Q5: Communication with technologists	100% of students will achieve an average score of 90 or higher on Clinical Preceptor Evaluations.	

	2022	2021	2020	2019	2018
N	34	43	28	33	41
Met	34	42	26	33	39
Mean	97.68	98	4.09	4.85	4.64
Range	90-100	88-100	3.88-4.24	4-5	2-5
%	100	98	93	100	95

	2022	2021	2020	2019	2018
N	34	43	28	33	41
Met	34	43	27	33	41
Mean	97.98	98	4.22	4.79	4.56
Range	92-100	90-100	3.91-4.34	4.4-5.0	4-5
%	100	100	96	100	100

Student Learning Outcome	Tool	Measure	Results

<table>
<tr>
<td>4.2 Students will develop written communication skills.</td>
<td>A. ALHE 4520 (Spring): Research Proposal Assignment</td>
<td>100% of students will achieve a score of 80 or higher.</td>
<td>
<table>
<tr><th></th><th>2022</th><th>2021</th><th>2020</th><th>2019</th><th>2018</th></tr>
<tr><td>N</td><td>34</td><td>31</td><td colspan="3" rowspan="5">New Measure for 2021</td></tr>
<tr><td>Met</td><td>34</td><td>27</td></tr>
<tr><td>Mean</td><td>94.17</td><td>90</td></tr>
<tr><td>Range</td><td>82-100</td><td>75-100</td></tr>
<tr><td>%</td><td>100</td><td>87%</td></tr>
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</tr>
<tr>
<td></td>
<td>B. RADS 4530 (Spring): Patient Education Brochure Assignment</td>
<td>100% of students will achieve a score of 85 or higher.</td>
<td>
<table>
<tr><th></th><th>2022</th><th>2021</th><th>2020</th><th>2019</th><th>2018</th></tr>
<tr><td>N</td><td>34</td><td>42</td><td>29</td><td>41</td><td>42</td></tr>
<tr><td>Met</td><td>32</td><td>42</td><td>28</td><td>40</td><td>42</td></tr>
<tr><td>Mean</td><td>90.7</td><td>95</td><td>94.5</td><td>93.7</td><td>88</td></tr>
<tr><td>Range</td><td>70-100</td><td>85-100</td><td>70-100</td><td>80-100</td><td>85-100</td></tr>
<tr><td>%</td><td>94</td><td>100%</td><td>96</td><td>98</td><td>100</td></tr>
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SLO: 4.1 Students will develop oral communication skills. Students will learn to effectively communicate with patients and fellow radiologic technologists throughout the clinical and didactic courses. The target is to have 100% of students achieve an average score of 90 or higher on question 4 (Measure A) and question 5 (Measure B) of the Clinical Preceptor's evaluation of student performance.

Findings: Targets were met for Measure A and for Measure B.

Analysis: SLO: 4.1 Students will develop oral communication skills.	
Measure A: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q4: Communication with patients	**Measure B: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q5: Communication with technologists**
2022: Met – 100 of students achieved an average of 90% or higher	2022: Met 100% of students achieved an average of 90% or higher
2021: Unmet – 98% of students achieved 90% or higher	2021: Met – 100% of students achieved 90% or higher
2020: Unmet—Only 93% of students achieved 4.0 or higher	2020: Unmet—Only 96% of students achieved 4.0 or higher
2019: Met—100% of students achieved 4.0 or higher	2019: Met—100% of students achieved 4.0 or higher
2018: Unmet—only 95% of students achieved 4.0 or higher	2018: Met—100% of students achieved 4.0 or higher

Measure A: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q4: Communication with patients: In 2022, the target was met; 100% of students will achieve an average score of 90% or higher on the Clinical Preceptor evaluation of students' oral communication skills with patients.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Faculty reviewed submitted evaluations, and any student scoring below 90% on an evaluation was called in for a counseling session regarding oral communication skills with patients.

As a result of these changes, in 2022, the target was met; 100% of students scored 90% or higher on question 4 of the Clinical Preceptor evaluation of students' oral communication skills with patients. These changes had a direct impact on the student's ability to communicate with patients in the clinical environment, thereby continuing to push the cycle of improvement forward.

Measure B: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q5: Communication with technologists: In 2022, the target was met; 100% of students achieved an average score of 90% or higher on the Clinical Preceptor evaluation of student professional behavior.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Faculty reviewed submitted evaluations, and any student scoring below 90% on an evaluation was called in for a counseling session regarding communication with radiologic technologists in the clinical setting.

As a result of these changes, in 2022, the target was met; 100% of students scored 90% or higher on question 5 of the Clinical Preceptor evaluation of students' oral communication skills with technologists. These changes had a direct impact on the student's ability to communicate with patients in the clinical environment, thereby continuing to push the cycle of improvement forward.

Decisions: In 2022**,** the targets were met for measure A and for measure B.

Measure A: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Faculty will review evaluation scores and counsel any student scoring below 90% on oral communication skills with patients.

2. Accentuate the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings.

Measure B: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Faculty will review evaluation scores and counsel any student scoring below 90% on communication skills with technologists.
2. Accentuate the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards three (educating patients), five (collaboration and collegiality).

These changes will improve the students' ability to orally communicate with patients and radiologic technologists in the clinical setting, thereby continuing to push the cycle of improvement forward.

SLO: 4.2 Students will develop written communication skills. Throughout the clinical and didactic courses, students will develop written communication skills. Each student is required to pass the course in order to progress to the next semester. The target is to have 100% of students score 80% or higher on the research proposal paper and score 85% or higher on the brochure assignment in radiation protection.

Findings: The target was met for Measure A and unmet for Measure B.

Analysis: SLO: 4.2 Students will develop written communication skills.	
Measure A: ALHE 4520 (Research): Research Proposal Paper	**Measure B: RADS 4530 (Radiation Protection): Brochure Assignment**
2022: Met – 100% of students achieved an 80% or higher	2022: Unmet – 94% of students achieved an 85% or higher
2021: Unmet – only 87% of students achieved 80% or higher	2021: Met – 100% of students achieved 85% or higher
2020: No data available	2020: Unmet—only 97% of students achieved 85% or higher
2019: No data available	2019: Unmet—only 98% of students achieved 85% or higher
2018: No data available	2018: Met—100% of students achieved 85% or higher

Measure A: ALHE 4520 Research proposal paper: In 2022, the target was met; 100% of students scored 80% or higher on the research proposal paper.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Within ALHE 4520, faculty integrated additional resources to facilitate peer review, and electronic tools providing automated feedback for spelling, grammar, academic writing, and more. In addition, current APA format resources have been added to the course. Added resources include virtual workshops, anonymous peer-review activities, and Feedback Fruits (an assignment tool integrated within Teams to provide students opportunities to give and receive feedback, work collaboratively, and review written assignments with an automated feedback checker). Lastly, advising students to enroll in the special section of ENGL 2110, which incorporates APA format instead of MLA, will continue for allied health and nursing students. These additional requirements should have a positive impact on student writing skills.

As a result of these changes, in 2022, the target was met; 100% of students scored 80% or higher on the research proposal paper. These changes had a direct impact on the student's ability to develop written communication skills, thereby continuing to push the cycle of improvement forward.

Measure B: RADS 4530 (Radiation Protection): Brochure Assignment: In 2022, the target was unmet; only 94% of students scored an 85% or higher on the brochure assignment.

Based on the analysis of the 2021 results, the faculty made the following changes in 2022 to drive the cycle of improvement. Faculty revised the assignment instructions, provided good examples of assignments, and sent out a reminder regarding the due date of the assignment. Faculty discussed in class the importance of the assignment.

As a result of these changes, in 2022, the target was unmet, with only 94% of students scoring 85% or higher on the brochure assignment. These changes had a direct impact on the student's ability to develop written communication skills, thereby continuing to push the cycle of improvement forward.

Decisions: In 2022**,** the target was met for measure A and unmet for measure B.

Measure A: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. The peer-review process will be mandatory for all student paper submissions.

2. Further revision of ALHE 4520 (Research Methods) to include additional resources to explain the research proposal paper assignment, an APA formatted template, and academic writing activities to aid in the development of writing skills.
3. The faculty will continue to advise students to enroll in the special section ENGL 2110 that incorporates APA format. It is projected that students will enter the program more prepared and with better writing and APA skills.

Measure B: Based on the analysis of the 2022 assessment cycle results, the faculty will implement the following changes in 2023 to drive the cycle of improvement:

1. Faculty will revise the assignment instructions.
2. Faculty will send out reminders regarding the due date of the assignment.
3. The faculty will provide additional examples of brochures in the classroom setting.
4. The faculty will discuss in class the importance of the assignment.

These changes will improve the students' ability to develop written communication skills, thereby continuing to push the cycle of improvement forward.

Comprehensive Summary of Key Evidence of Improvements Based on Analysis of Results

Continuous improvement is an emphasis for the radiologic sciences program. The focus on continual improvement has brought forth many changes that have been executed, throughout the program, to positively affect student learning to meet the needs of the radiologic sciences student while preparing them for the future as radiologic technologists. Below is the summary of changes that have occurred during the AC 2022-2023 related to the student learning for the BSRS program based on the analysis of AC 2021-2022 results.

Summary of Goal 1: Students will be CLINICALLY COMPETENT radiologic technologists.

1.1 Summary: It is imperative that radiologic science students can perform radiographic procedures in a quality manner. This SLO focuses on this skill through two methods, one in the classroom and the other in the clinical environment. While there was an improvement in one of the measures for this outcome, signifying students are developing their skills to complete radiographic procedures with quality, both measures were unmet in 2022 AC. It is vital that both measures are constantly met. The following activities were implemented in the 2022 AC:

Measure A: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following activities in 2022 to drive the cycle of improvement:

1. There was frequent interaction between faculty members and students related to their clinical experiences.
2. Students participated in discussion board posts in Moodle related to their clinical experiences.
3. Faculty reviewed the student's evaluation scores and counseled the students scoring below 85%.

Measure B: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Students completed assignments in RadTech Bootcamp.
2. Faculty will integrated ASRT video series within positioning course.
3. Additional "open lab" practice sessions were held.
4. Faculty posted image critique videos in Moodle for the students to review.
5. The lab sessions were reconfigured into two sections to have fewer students in each section.

1.2 Summary: For students to become clinically competent radiologic technologists, they must develop patient assessment skills. This SLO assesses this occurrence using two measures. Both measures were unmet for 2022 AC cycle. Therefore, a series of actions will occur before AC 2023 to ensure that students develop essential assessment skills. These actions include:

Measure A: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty provided open resource material in the course with the most current information.
2. Discussion forums were revised to focus on patient assessment.

Measure B: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty integrated ASRT video series on positioning and image critique into the course.
2. The lab was reconfigured into two sections to have fewer students in each section.
3. The faculty allowed students to record the trauma practice labs so students can evaluate their assessment skills.
4. Additional "open lab" for practice sessions were held.

5. Trauma content was moved earlier in the program for repeated exposure.

Summary of Goal 2: Students will demonstrate CRITICAL THINKING skills.

2.1 Summary: For students to demonstrate critical thinking skills, they must evaluate a clinical situation and perform accordingly using critical thinking skills. This SLO focuses on this skill through two methods, one in the trauma lab and the other in the clinical environment. In previous years, one tool used to measure this SLO was an assignment within RADS 4510 (Professional Imaging Practices). Due to changes within that course, the faculty changed the tool to the clinical preceptor evaluation in RADS 3911 as it was more reflective of the student's ability to demonstrate critical thinking skills within the clinical environment. Only the two measures were met for 2022 AC. The following actions occurred:

Measure A: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty integrated ASRT video series on positioning and image critique into the course.
2. The lab was reconfigured into two sections to have fewer students in each section.
3. The faculty allowed students to record the trauma practice labs so students can evaluate their assessment skills.
4. Additional "open lab" for practice sessions were held.
5. Trauma content was moved earlier in the program for repeated exposure.

Measure B: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty reviewed evaluation scores and counseled any student scoring below 85% on adapting routine to patient condition question.

2.2 Summary: Throughout the clinical and didactic courses, students will learn to evaluate a clinical situation and perform accordingly using critical thinking skills. Each student is required to pass the course in order to progress to the next semester. The target is to have 100% of students score an 80% or higher on the quality management project and an 80% or higher on the case study project. The SLO was revised to reflect a more accurate description of what is measured. The target was unmet for Measure A and no data was collected for Measure B due to the COVID pandemic.

Measure A: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Course was revised to align with Quality Matters guidelines.
2. Components of the QC project was threaded through the course to provide multiple opportunities for students to incorporate feedback prior to the final submission.

Measure B: No data was obtained due to COVID restrictions for 2022; however, faculty will revisit the analysis of the 2021 assessment cycle results.

Summary of Goal 3: Students will demonstrate an understanding of professionalism.

3.1 Summary: Based on curriculum standards, this SLO measures professional advocacy as a component of professionalism. While both targets were met for the 2022 AC cycle there is room for improvement; therefore, a series of actions occurred during 2022 AC to ensure that students developed the skills needed to demonstrate an understanding of professional advocacy. These actions included:

Measure A: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty encouraged students to obtain a membership with LSRT.
2. Faculty encouraged students to participate in LSRT competitive events which counted as clinical hours.
3. Faculty offered incentives to students in exchange for attending in LSRT conferences.
4. Faculty facilitated review and prep sessions for LSRT student competitions.

Measure B: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty recommended and approved service-learning project focus.
2. Faculty provided weekly announcements reminding students of upcoming due dates and assignment criteria.
3. Faculty recommended students watch the video within the course detailing project requirements and clarifying assignment components and reach out if they have any questions.

3.2 Summary: Throughout clinical and didactic courses, students will learn about the importance of professional behaviors. The targets were met for Measures A and B. To continue successful outcomes, a series of actions occurred in AC 2022 to ensure that students developed skills needed to demonstrate an understanding of professionalism. These actions included:

Measure A: **RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q2: Professional Behavior.** Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2021 to drive the cycle of improvement:

1. Faculty reviewed evaluation scores and counseled any student scoring below 90% on the quality of work and performance.
2. Faculty accentuated the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings.

Measure B: RADS 3911 (Clinic 3): Clinical Preceptor Evaluation of Student Q2: Professional Behavior. Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty reviewed evaluation scores and counseled any student scoring below 90% on the quality of work and performance.
2. Faculty emphasized the importance of adherence to the ASRT Practice Standards and the ARRT Codes of Ethics in class and clinical settings.

Summary: Goal 4: Students will demonstrate the ability to communicate effectively.
Effective communication is essential in all allied health professions. Oral and written communication is used to evaluate the communication skills of an individual. Goal 4 assesses students' ability to communicate effectively and utilizes two SLOs to evaluate the goal. The events used to assess the SLO comprise communication with patients and technologists—two indispensable abilities in any clinical setting.

4.1 Summary: This SLO measures oral communication in the healthcare setting; in particular, with patients and radiologic Technologists. The targets were met for Measure A and Measure B.

Measure A: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty reviewed evaluation scores and counseled any student scoring below 90% on oral communication skills with patients.

2. Faculty emphasized the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings.

Measure B: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. Faculty reviewed evaluation scores and counseled any student scoring below 90% on communication skills with technologists.
2. Faculty stressed the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings.

4.2 Summary: Two measures were used to assess students' written communication skills. The target was met for Measure A and unmet for Measure B. In 2022, the following actions occurred:

Measure A: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. The peer-review process was implemented for all student paper submissions.
2. ALHE 4520 (Research Methods) was revised to include additional resources for academic writing activities and format.
3. The faculty continued to advise students to enroll in the special section ENGL 2110 that incorporates APA format.

Measure B: Based on the analysis of the 2021 assessment cycle results, the faculty implemented the following changes in 2022 to drive the cycle of improvement:

1. The faculty provided additional examples of brochures in the classroom setting.
2. The faculty discussed in class the importance of the assignment.

Plan of Action Moving Forward in 2023

Based on the evidence provided from the AC 2022-2023, the BSRS program will make the following changes for continuous program improvement in AC 2023-2024:

Goal 1: Students will be clinically competent radiologic technologists.

- SLO 1.1: Students will perform quality radiographic procedures.

1. Faculty will retrieve prompt feedback from clinical preceptors due to the edited evaluation form when a student scores an average, below average, or unsatisfactory.
2. Frequent interaction between faculty members and students.
3. Discussion forum posting in Moodle. This post will ask about clinical procedures and create dialog regarding performing quality procedures. Faculty members will post prompts to encourage discussion.
4. Faculty will review evaluation scores and counsel any student scoring below 85% on work and performance quality.
5. Students will be required to attend tutoring if they are unsuccessful on previous lab tests before the comprehensive final exam.
6. The tutor will be asked to integrate the use of ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos on their own in preparation for the final lab exam.
7. Students will be required to complete assignments in RadTech Bootcamp as part of the test remediation if they are unsuccessful on lab tests leading up to final exam.
8. Additional “open lab” practice opportunities will be scheduled.
9. Students will be encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
10. Due to the class size of the current cohort, the lab will be scheduled twice a week into two sections to have fewer students in each section. This should increase students’ opportunities to practice during lab time.

- SLO 1.2: Students will develop the assessment skills of a radiographer.
    1. Faculty will revisit the late policy and clarify extenuating circumstances.
    2. Faculty will send out assignment deadline reminders.
    3. Faculty discussed that when students miss taking an exam, then their skills are not really being assessed; therefore, the measure will be revisited concerning only averaging the exams taken.
    4. Students will be required to attend tutoring if they are unsuccessful on previous lab tests in both RADS 3310 and 3820 before the trauma lab exam is given.
    5. The tutor will be asked to integrate the use of ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos on their own in preparation for the final lab exam.

6. Students will be required to complete assignments in RadTech Bootcamp as part of the test remediation if they are unsuccessful on lab tests leading up to trauma lab exam.
7. Additional “open lab” practice opportunities will be scheduled.
8. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
9. Due to the class size of the current cohort, the lab will be scheduled twice a week into two sections to have fewer students in each section. This should increase students’ opportunities to practice during lab time.
10. Trauma content will be moved earlier in the program in RADS 3310 and RADS 3820 for repeated exposure before the trauma lab exam.

Goal 2: Students will demonstrate critical thinking skills.

- SLO 2.1: Students will evaluate a clinical situation and perform accordingly using critical thinking skills.
    1. Students will be required to attend tutoring if they are unsuccessful on previous lab tests in both RADS 3310 and 3820 before the trauma lab exam is given.
    2. The tutor will be asked to integrate the use of ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos on their own in preparation for the final lab exam.
    3. Students will be required to complete assignments in RadTech Bootcamp as part of the test remediation if they are unsuccessful on lab tests leading up to trauma lab exam.
    4. Additional “open lab” practice opportunities will be scheduled.
    5. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
    6. Due to the class size of the current cohort, the lab will be scheduled twice a week into two sections to have fewer students in each section. This should increase students’ opportunities to practice during lab time.
    7. Trauma content will be moved earlier in the program in RADS 3310 and RADS 3820 for repeated exposure before the trauma lab exam.
    8. Faculty will review evaluation scores and counsel any student scoring below 85% on the adapt routine to patient condition question.
- SLO 2.2: Students will critically evaluate and assess challenges within the healthcare administrative setting.

1. Post multiple announcements encouraging students to begin work on their proposals early to allow adequate time to create a quality proposal.
2. Encourage students to reach out to the instructor for feedback or help during the development of the proposal.
3. Provide a discussion board forum to allow students to post questions related to the assignment.
4. Integrate a video to explain the assignment in detail.
5. Increase the number of case studies offered.
6. Faculty will make frequent announcements and reminders in the class about the due dates of assignments

Goal 3: Students will demonstrate an understanding of professionalism.

- SLO: 3.1: Students will demonstrate service to the profession and the community.
    1. Faculty are requiring students to obtain a membership with LSRT.
    2. Faculty are requiring students to participate in LSRT competitive events. Students can choose from one of three competitions which will count toward their clinical grade.
    3. Faculty will offer incentives to students in exchange for attending in LSRT/ASRT conferences, participating in competitive events, and volunteering for student leadership opportunities.
    4. Faculty will facilitate review and prep sessions for LSRT student competitions.
    5. Faculty will recommend and approve service-learning project focus.
    6. Faculty will provide weekly announcements reminding students of upcoming due dates and assignment criteria.
    7. Faculty will recommend students to watch the video within the course detailing project requirements and clarifying assignment components and reach out if they have any questions.
- SLO: 3.2: Students will integrate adherence to professional behaviors.
    1. Frequent interaction between faculty members and students will continue to be utilized. This interaction will reinforce to the student the importance of producing quality work.
    2. Faculty will review evaluation scores and counsel any student scoring below 90% on the quality of work and performance.
    3. Accentuate the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings.

4. Frequent interaction between faculty members and students will continue to be utilized. This interaction will reinforce to the student the importance of producing quality work.
5. Faculty will review evaluation scores and counsel any student scoring below 90% on the quality of work and performance.

Goal 4: Students will demonstrate the ability to communicate effectively.

- SLO: 4.1: Students will develop oral communication skills.
    1. Faculty will review evaluation scores and counsel any student scoring below 90% on oral communication skills with patients.
    2. Accentuate the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards and the American Registry of Radiologic Technologists (ARRT) Codes of Ethics in class and clinical settings.
    3. Faculty will review evaluation scores and counsel any student scoring below 90% on communication skills with technologists.
- SLO: 4.2: Students will develop written communication skills.
    1. The peer-review process will be mandatory for all student paper submissions.
    2. Further revision of ALHE 4520 (Research Methods) to include additional resources to explain the research proposal paper assignment, an APA formatted template, and academic writing activities to aid in the development of writing skills.
    3. The faculty will continue to advise students to enroll in the special section ENGL 2110 that incorporates APA format. It is projected that students will enter the program more prepared and with better writing and APA skills.
    4. Faculty will send out reminders regarding the due date of the assignment.
    5. The faculty will provide additional examples of brochures in the classroom setting.
    6. The faculty will discuss in class the importance of the assignment.
    7. Faculty will revise the assignment instructions.