NORTHWESTERN STATE
College of Nursing and School of Allied Health

Assessment Cycle 2023-2024

Bachelor of Science in Radiologic Sciences

Division or Department: School of Allied Health

Prepared by: Dr. Tammy Curtis **Date: March 20, 2024**

Approved by: Dr. Aimee Badeaux, Interim Dean **Date: April 3, 2024**

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.	

	2023	2022	2021	2020	2019
N	48	34	43	28	33
Met	48	33	43	28	33
Mean	97.31	96.11	96.4	3.96	4.77
Range	88-100	84-100	87-100	3.5-4.3	4.3-5
%	100	97	100	100	100

	2023	2022	2021	2020	2019
N	37	52	43	44	31
Met	36	44	30	29	13
Mean	87	84	81	87	82.5
Range	74-94	65-97	62-98	69-98	71-99
%	97	84	70	66	42

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 taken in ALHE 3840	100% of students will achieve a mean score of 80 or higher on all Assessment Tests taken.	
	B. RADS 3820 ***(Fall Semester)*** Trauma Lab Exam	100% of students will achieve a score of 77 or higher.	

	2023	2022	2021	2020	2019
N	44	48	44	45	32
Met	37	45	44	38	32
Mean	93.5	91.02	93	87	97
Range	57-100	65.28-98.33	80-100	63-99	80-100
%	84	93.75	100	84	100

	2023	2022	2021	2020	2019
N	37	52	43	44	31
Met	34	48	38	42	29
Mean	89.8	90.8	89.5	92.1	89.5
Range	66-100	60-100	66-100	78-100	63-100
%	92	92	88	95	94

SLO: 1.1 Students will perform quality radiographic procedures. Throughout clinical and didactic courses, students will learn 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: The target was met for measure A and unmet for measure 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**
2023: Met - 100% of students achieved 85% or higher.	2023: Unmet – 97% of students achieved 77% or higher
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.

Measure A: RADS 4611: Clinical Preceptor Evaluation of Student Q16: Quality of work and performance: In 2023, the benchmark was met. This achievement was an improvement from 2022; however, there were only two students who did not meet the target in 2022; there was still a high percentage of students who did meet in 2022. We appear to be back on track in 2023. Taking into consideration the 5-year average, students are performing quality radiographic procedures. This measure is obtained from clinical student evaluations and quantifies the students' quality of work and performance in the clinical setting.

Based on the analysis of 2023 data, in 2024, clinical faculty will review submitted clinical evaluations after each clinical rotation. Students scoring below 85% on an evaluation will be called in for a counseling session regarding the quality of work and performance. Suppose the clinical preceptor selects average, below average,

or unsatisfactory. In that case, the form will prompt the preceptor to provide feedback/comments on why the student scored below the benchmark of above average. This feedback will provide faculty with data for areas of student improvement.

Measure B: RADS 3820 (Positioning II): Comprehensive Lab Final Exam: In 2023, the target was unmet. The target is 100% of the students scoring 77% or higher on the comprehensive lab final exam. In 2023, only 97% of the students scored 77% or higher, specifying that one student did not successfully display 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 2022 results, the faculty made the following changes in 2023 to drive the cycle of improvement. The faculty integrated the ASRT professional video series on positioning and image critique and RadTechBootCamp as learning resources. Students must purchase the RadTechBootCamp 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, two lab sections are scheduled to have fewer students in each section, increasing students' opportunities to practice during lab time.

As a result of these changes, in 2023, the target was still unmet; 100% of students did not score 77% or higher on the comprehensive lab final exam. However, this improved over the previous years; in 2022, only 84% 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 2023**,** the target was met for measure A and unmet for measure B.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following activities in 2024 to drive the cycle of improvement:

1. Faculty will review the clinical preceptors' comments and feedback per clinical rotation. This feedback will be shared with the students.
2. Faculty review evaluation scores and counsel any student scoring below 85% on work and performance quality.

3. Frequent interaction between faculty members and students to reinforce to the student the importance of producing quality work.
4. 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 give students another mechanism to discuss their work and performance with faculty and peers. Positive dialog and constructive criticism can help the student perform better in the clinical setting.

Measure B: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Students will be required to complete assignments in RadTech Bootcamp as part of their grade for each content area.
2. Students will be required to attend tutoring if they are unsuccessful on previous lab tests before the comprehensive final exam.
3. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique.
4. The students will also be expected to utilize these videos independently in preparation for the final lab 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 radiographers. 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 for Measures A and B were unmet.

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**
2023: Unmet- only 84% of students achieved 80% or higher.	2023: Unmet – only 92% of students achieved 77% or higher.
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.

Measure A: ALHE 3840 (Advanced Patient Care): Overall Patient Assessment Tests: In 2023, the target was unmet, indicating that not all students achieved 80% or higher on the assessment tests.

Based on the analysis of the 2022 results, the faculty made the following changes in 2023 to drive the cycle of improvement: Faculty revisited the late policy and clarified extenuating circumstances. Faculty sent out assignment deadline reminders. Faculty discussed that when students miss taking an exam, their skills are not assessed; therefore, the measure was revisited concerning only averaging the exams taken. 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 84% of students scored 80% or higher on the overall patient assessment tests in ALHE 3840. In reviewing the individual students' progress, seven students did not meet this measure because some tests were missed, resulting in zeros. On the other assessments these students completed, the students successfully mastered the content and achieved an average above 80.

In 2024, the faculty will make the following changes. Faculty will remind students of deadlines and how the late policy will affect their grades. Faculty discussed that when students miss taking an exam, their skills are not assessed; therefore, the measure will be revisited concerning only averaging the exams taken. As a result, the measure for 2024 was revised to state the only the exams completed will be factored in the class average.

Measure B: RADS 3820 (Positioning II): Trauma Lab Scenario: In 2023, the target was unmet. The target is 100% of the students scoring 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 2022 results, the faculty made the following changes in 2023 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 "open lab" for practice sessions.

Even with these changes, in 2023, 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.

In 2024, the faculty will make the following changes. In addition to the current strategies, faculty will review the trauma lab evaluation tool and revise the weighted points. Faculty realized that the points were much steeper than the other lab tests. With the current direct radiography equipment systems, some items on the tool must be deleted while others need adding. The tool needs to match current practice in the clinical education setting.

Decisions:
In 2023**,** the targets for measures A and B were unmet.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Faculty will remind students of how the late policy affects their grades.
2. Faculty will send out assignment deadline reminders.
3. Faculty discussed that when students miss taking an exam, their skills are not assessed; therefore, the measure was revised to calculate only averaging the exams taken.

Measure B: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Faculty will revise the trauma lab evaluation tool to correct weighted points and update items to match current equipment and practice in the clinical education setting.

2. Students will be required to attend tutoring if they are unsuccessful on previous RADS 3310 and 3820 lab tests before the trauma lab exam is given.
3. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos independently in preparation for the final 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.	

	2023	2022	2021	2020	2019
N	37	52	43	44	31
Met	34	48	38	42	29
Mean	89.8	90.8	89.5	92.1	89.5
Range	66-100	60-100	67-100	78-00	70-99
%	92	92	88	95	94

	2023	2022	2021	2020	2019
N	48	34	42		
Met	48	34	41	New Measure for 2021	
Mean	95.52	94.48	93.7		
Range	86-100	86-100	78-100		
%	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 Presentation	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.	

	2023	2022	2021	2020	2019
N	45	55	42	29	35
Met	36	48	37	28	34
Mean	87.1	87.63	89.54	85.69	90.25
Range	57-100	63-100	60-100	55-100	73-100
%	80	87	88	97	97

	2023	2022	2021	2020	2019
N	37	No data due to COVID	29	33	41
Met	37		29	33	41
Mean	91.5		97	96.39	92.9
Range	80-96		93-100	80-100	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 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 for Measure A was unmet 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**
2023: Unmet- only 92% of students achieved 77% or higher	2023: Met – 100% of students achieved 85% or higher
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

Measure A: RADS 3820 (Positioning II): Trauma lab scenario: In 2023, the target was unmet. The target is 100% of the students scoring 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 2022 results, the faculty made the following changes in 2023 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 "open lab" for practice sessions.

Even with these changes, in 2023, 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.

In 2024, the faculty will make the following changes. In addition to the current strategies, faculty will review the trauma lab evaluation tool and revise the weighted points. Faculty realized that the points were much steeper than the other lab tests. With the current direct radiography equipment systems, some items on the tool must be deleted while others need adding. The tool needs to match current practice in the clinical education setting.

Measure B: RADS 3911 (Clinic III): Clinical Preceptor Evaluation of Student Q17: Adapt Routine to Patient Condition: In 2023, 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 2022 assessment results, the faculty made the following changes in 2023 to drive the cycle of improvement. Faculty reviewed evaluation scores and counseled any student scoring below 85% on the adapt routine to patient condition question.

Decisions:
In 2023**,** the target was unmet for measure A and met for measure B.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Faculty will revise the trauma lab evaluation tool to correct weighted points and update items to match current equipment and practice in the clinical education setting.
2. Students will be required to attend tutoring if they are unsuccessful on previous RADS 3310 and 3820 lab tests before the trauma lab exam is given.
3. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos independently in preparation for the final 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 2023 assessment cycle results, the faculty will implement the following changes in 2024 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 per clinical rotation as scheduled.

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 80% or higher on the quality control project and 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 was changed.

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

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)**
2023: Unmet- only 80% of students achieved 80% or higher	**2023:** Met- 100% of students achieved 80% or higher
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

Measure A: ALHE 4610 (Healthcare Quality): QM Project Presentation: In 2023, the target was unmet. The target is 100% of the students scoring 80% or higher on the quality management project. Only 80% of the students scored 80% or higher.

Based on the analysis of the 2022 assessment cycle results, the faculty made the following changes in 2023 to drive the cycle of improvement. Faculty posted multiple announcements encouraging students to begin working on their proposals early to allow adequate time to create a quality proposal. Faculty encourage students to contact the instructor for feedback or help while developing the proposal.

As a result of these changes, in 2023, the target was still unmet; 100% of students did not score 80% or higher on the quality management project. The results are lower than in 2022. In examining the students who performed below the benchmark, it appeared that they did not include all the assignments' required components.

As a result, in 2024, the faculty will implement an assignment checklist. The faculty plans to revise the assignment. Students will not submit a presentation to TEAMS, but instead of this assignment being a presentation, the assignment will now be a report. The students will now create a Word document proposal and submit it to Moodle's assignment folder. Faculty will develop a rubric to match the new assignment format.

Measure B: ALHE 4630 (Healthcare Organization and Management): Case Study Project: In 2023, the target was met. 100% of students scored an 80% or higher on their case management study project.

Moving forward in 2024, even though the target was met, the faculty plan to add an assignment checklist to help students stay on track in addition to the current strategies.

Decisions: In 2023, the target was unmet for measure A and met for measure B.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Create an assignment checklist.
2. Convert the assignment from a presentation to a report.
3. Develop a rubric to match the assignment format.

Measure B: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Create an assignment checklist.

2. Provide a discussion board forum to allow students to post questions about the assignment.
3. Encourage students to watch the assignment video.
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 evaluate and assess challenges within the healthcare administrative setting critically.

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 3911 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

	2023	2022	2021	2020	2019
N	84	82	43		
Met	27	30	23	New Measure for 2021	
Mean	N/A	N/A	N/A		
Range	N/A	N/A	N/A		
%	32	36	53		

	2023	2022	2021	2020	2019	2018
N	44	31	46	No data due to COVID	33	New Measure for 2019
Met	44	31	42		33	
Mean	94.5	98.06	96		99	
Range	80-100	80-100	50-100		95-100	
%	100	100	91		100	

Student Learning Outcome	Tool	Measure	Results
3.2 Students will integrate adherence to professional behaviors.	A. RADS 4611 ***(Fall):*** Clinical Preceptor Evaluation of Student Q2: Professional Behavior	100% of students will achieve an average score of 90 or higher on Clinical Preceptor Evaluations.	See table below

	2023	2022	2021	2020	2019
N	48	34	43	28	33
Met	48	34	43	25	29
Mean	98.9	98.39	98.4	4.22	4.83
Range	94-100	92-100	90-100	3.91-5	3.6-5
%	100	100	100	89	88

	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.	

	2023	2022	2021	2020	2019
N	48	34	42	29	30
Met	48	34	41	24	30
Mean	98.23	98.18	97.9	4.48	4.68
Range	94-100	92-100	85-100	3.99-5	4-5
%	100	100	98	83	100

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. The target is to have 25% of students demonstrate involvement in professional associations and score 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**
2023: Met – 32% of students demonstrated involvement in professional associations	2023: Met – 100% of students achieved 80% or higher
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

Measure A: RADS 4511 (Clinic IV): Student Demonstrated Involvement in Professional Associations. In 2023, the target was met; 32% (27 out of 84 students) 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 explained the importance of professional associations and efforts to advocate for the

profession. The LSRT and ASRT provide education and updates on potential government policies impacting radiology.

As a result of these strategies, in 2023, the target was met, with 32% of students demonstrating 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. These strategies directly impacted the student's ability to demonstrate an understanding of professional advocacy.

In 2024, even though this benchmark was met, the faculty asked for the funds that the university president allocated to the BSRS students to be applied to LSRT conference registration, and the request was approved. The faculty hopes to have more students attend the conference at a lower personal cost.

Measure B: ALHE 3840 (Advanced Patient Care): Service-Learning Project: In 2023, 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 2022 results, the faculty made the following changes in 2022 to drive the cycle of improvement. The faculty implemented the revised guidelines for the assignment along with a video with the expectations for the assignment.

As a result of these changes, in 2023, the target was met; 100% of students scored 80% or higher on the service-learning project.

Decisions: In 2023**,** measures A and B met the target.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. The funds from the president for the BSRS students will go toward conference registration.
2. Faculty are requiring students to obtain a membership with LSRT.
3. 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.
4. Faculty will offer incentives to students in exchange for attending LSRT/ASRT conferences, participating in competitive events, and volunteering for student leadership opportunities.
5. Faculty will facilitate review and prep sessions for LSRT student competitions.

Measure B: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Faculty will recommend and approve the focus of the service-learning project.
2. Faculty will provide weekly announcements reminding students of upcoming due dates and assignment criteria.
3. Faculty will recommend that students 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 each measure's Clinical Preceptor evaluation of professional behavior.

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**
2023: Met- 100% of students achieved 90% or higher	2023: Met- 100% of students achieved 90% or higher
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

Measure A: Students will integrate adherence to professional behaviors (RADS 4611). In 2023, 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 2022 assessment cycle results, the faculty made the following changes in 2023 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 2023, 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 2023, 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 2022 results, the faculty made the following changes in 2023 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 2023, the target was met.

Decisions: In 2023**,** measures A and B met the targets.

Measure A: **RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q2: Professional Behavior.** Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 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 per clinical rotation.
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 2023 assessment cycle results, the faculty will implement the following changes in 2024 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.	

	2023	2022	2021	2020	2019
N	48	34	43	28	33
Met	48	34	42	26	33
Mean	97.37	97.68	98	4.09	4.85
Range	92-100	90-100	88-100	3.88-4.24	4-5
%	100	100	98	93	100

	2023	2022	2021	2020	2019
N	48	34	43	28	33
Met	48	34	43	27	33
Mean	98.44	97.98	98	4.22	4.79
Range	93-100	92-100	90-100	3.91-4.34	4.4-5.0
%	100	100	100	96	100

<table>
<tr><th>Student Learning Outcome</th><th>Tool</th><th>Measure</th><th>Results</th></tr>
<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>2023</th><th>2022</th><th>2021</th><th>2020</th><th>2019</th></tr>
<tr><td>N</td><td>44</td><td>34</td><td>31</td><td colspan="2" rowspan="5">New Measure for 2021</td></tr>
<tr><td>Met</td><td>44</td><td>34</td><td>27</td></tr>
<tr><td>Mean</td><td>91.2</td><td>94.17</td><td>90</td></tr>
<tr><td>Range</td><td>81-100</td><td>82-100</td><td>75-100</td></tr>
<tr><td>%</td><td>100</td><td>100</td><td>87%</td></tr>
</table>
</td></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>2023</th><th>2022</th><th>2021</th><th>2020</th><th>2019</th></tr>
<tr><td>N</td><td>85</td><td>34</td><td>42</td><td>29</td><td>41</td></tr>
<tr><td>Met</td><td>82</td><td>32</td><td>42</td><td>28</td><td>40</td></tr>
<tr><td>Mean</td><td>95.5</td><td>90.7</td><td>95</td><td>94.5</td><td>93.7</td></tr>
<tr><td>Range</td><td>55-100</td><td>70-100</td><td>85-100</td><td>70-100</td><td>80-100</td></tr>
<tr><td>%</td><td>96</td><td>94</td><td>100%</td><td>96</td><td>98</td></tr>
</table>
</td></tr>
</table>

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 questions 4 (Measure A) and 5 (Measure B) of the Clinical Preceptor's evaluation of student performance.

Findings: Targets were met for Measure A and 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**
2023: Met – 100 of students achieved an average of 90% or higher	2023: Met – 100 of students achieved an average of 90% or higher
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

Measure A: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q4: Communication with patients: In 2023, 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 2022 results, the faculty made the following changes in 20223 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 2023, 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 2023, 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 2022 results, the faculty made the following changes in 2023 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 2023, 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 2023**,** measures A and B met the targets.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 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 per clinical rotation.

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 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. Faculty will review evaluation scores and counsel any student scoring below 90% on communication skills with technologists for every clinical rotation.
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 student's ability to communicate orally with patients and radiologic technologists in the clinical setting, thereby continuing to push the improvement cycle 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 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**
2023: Met – 100% of students achieved an 80% or higher	2023: Unmet – 96% of students achieved an 85% or higher
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

Measure A: ALHE 4520 Research proposal paper: In 2023, the target was met; 100% of students scored 80% or higher on the research proposal paper.

Based on the analysis of the 2022 results, the faculty made the following changes in 2023 to drive the cycle of improvement. Faculty made the peer-review process mandatory for all student paper submissions.
Faculty included additional resources to explain the research proposal paper assignment, including an APA formatted template and academic writing activities to aid in developing writing skills. The faculty continued advising students to enroll in the special section ENGL 2110 incorporating APA format. Students are projected to enter the program more prepared and with better writing and APA skills.

As a result of these changes, in 2023, 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 2023, the target was unmet; only 96% of students scored an 85% or higher on the brochure assignment.

Based on the analysis of the 2022 results, the faculty made the following changes in 2023 to drive the cycle of improvement. The faculty revised the assignment instructions, provided good examples of assignments, and sent out a reminder regarding the assignment's due date. Faculty discussed in class the importance of the assignment.

As a result of these changes, in 2023, the target was still unmet, with only 96% of students scoring 85% or higher on the brochure assignment. While the target was unmet, there was an increase in the percentage of students who met the target. The two students did not meet the target due to not following the assignment instructions regarding format and missing content.

In 2024, in addition to the current strategies, the faculty plans to add an assignment checklist.

Decisions: In 2023**,** the target was met for measure A and unmet for measure B.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

1. The peer-review process will remain mandatory for all student paper submissions.
2. Faculty will encourage students to utilize the additional resources supporting the research proposal paper assignment: an APA formatted template and academic writing activities to develop writing skills.

3. The faculty will continue advising students to enroll in the special section ENGL 2110 incorporating APA format. Students are projected to enter the program more prepared and with better writing and APA skills.

Measure B: Based on the analysis of the 2023 assessment cycle results, the faculty will implement the following changes in 2024 to drive the cycle of improvement:

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

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 Improvement 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 and meet the needs of the radiologic sciences students while preparing them for the future as radiologic technologists. Below is the summary of changes that have occurred during the AC 2023-2024 related to student learning for the BSRS program based on the analysis of AC 2022-2023 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 one measure was improved for this outcome, signifying students are developing their skills to complete radiographic procedures with quality, one measure was unmet in 2023 AC. Both measures must be constantly met. The following activities were implemented in the 2023 AC:

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

1. Faculty edited the clinical evaluation template to prompt clinical preceptors to provide comments/feedback if scoring the student for average, below average, or unsatisfactory on evaluation.
2. Faculty interacted with students frequently. This interaction reinforced to the students the importance of producing quality work.

3. A discussion forum was posted in Moodle. This post asked about clinical procedures and created a dialog regarding performing quality procedures. Faculty members posted prompts to encourage discussion. This discussion board gave students another mechanism to discuss their work and performance with faculty and peers. Positive dialog and constructive criticism were then offered to help the student perform better in the clinical setting.
4. Faculty reviewed evaluation scores and counseled any student scoring below 85% on work and performance quality.

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

1. Students were required to attend tutoring if they were unsuccessful on previous lab tests before the comprehensive final exam.
2. The tutor was asked to integrate the use of the ASRT professional video series on positioning and image critique.
3. The students were expected to utilize these videos independently in preparation for the final lab exam.
4. Students were required to complete assignments in RadTech Bootcamp as part of the test remediation if they were unsuccessful on lab tests leading up to the final exam.
5. Additional “open lab” practice opportunities were scheduled.
6. Students were 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 was scheduled twice a week into two sections to have fewer students in each section. This should increase students’ opportunities to practice during lab time.

1.2 Summary: To become clinically competent radiologic technologists, students must develop patient assessment skills. This SLO assesses this occurrence using two measures. Both measures were unmet for the 2023 AC cycle. Therefore, actions will occur before AC 2024 to ensure students develop essential assessment skills. However, the faculty implemented the following changes in 2023 to drive the cycle of improvement:

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

1. Faculty revisited the late policy and clarified extenuating circumstances.
2. Faculty sent out assignment deadline reminders.

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

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

1. Students were required to attend tutoring if they were unsuccessful on previous lab tests in RADS 3310 and 3820 before the trauma lab exam was given.
2. The tutor was asked to integrate the use of the ASRT professional video series on positioning and image critique. The students were expected to utilize these videos independently in preparation for the final lab exam.
3. Students were required to complete assignments in RadTech Bootcamp as part of the test remediation if they were unsuccessful on lab tests leading up to the trauma lab exam.
4. Additional “open lab” practice opportunities were scheduled.
5. Students were 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 was scheduled twice a week into two sections to have fewer students in each section. This increased students’ opportunities to practice during lab time.
7. Trauma content was moved earlier in the program in RADS 3310 and RADS 3820 for repeated exposure before the trauma lab exam.

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. Only one measure was met for 2023 AC. The following actions occurred:

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

1. Students were required to attend tutoring if they were unsuccessful on previous lab tests in RADS 3310 and 3820 before the trauma lab exam was given.

2. The tutor was asked to integrate the use of the ASRT professional video series on positioning and image critique. The students were expected to utilize these videos independently in preparation for the final lab exam.
3. Students were required to complete assignments in RadTechBootcamp as part of the test remediation if they were unsuccessful on lab tests leading up to the trauma lab exam.
4. Additional “open lab” practice opportunities were scheduled.
5. Students were 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 was scheduled twice a week into two sections to have fewer students in each section. This increased students’ opportunities to practice during lab time.
7. Trauma content was moved earlier in the program in RADS 3310 and RADS 3820 for repeated exposure before the trauma lab exam.

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 questions.

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 80% or higher on the quality management project and 80% or higher on the case study project. The target was unmet for both Measures A and B.

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

1. Faculty posted multiple announcements encouraging students to begin work on their proposals early to allow adequate time to create a quality proposal.
2. Faculty encouraged students to contact the instructor for feedback or help while developing the proposal.

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

1. Faculty provided a discussion board forum for students to post questions about the assignment.
2. The faculty integrated a video to explain the assignment in detail.
3. Faculty increased the number of case studies offered.
4. Faculty made frequent announcements and reminders in the class about the due dates of assignments.

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 2023 AC cycle, there is room for improvement; therefore, a series of actions occurred during 2023 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 2022 assessment cycle results, the faculty implemented the following changes in 2023 to drive the cycle of improvement:

1. Faculty required students to obtain a membership with LSRT.
2. Faculty required students to participate in LSRT competitive events. Students can choose from one of three competitions, which count toward their clinical grade.
3. Faculty offered incentives to students in exchange for attending LSRT/ASRT conferences, participating in competitive events, and volunteering for student leadership opportunities.
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 the student's service-learning project focus.
2. Faculty provided weekly announcements reminding students of upcoming due dates and assignment criteria.
3. Faculty recommended that 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 for Measures A and B were met. To continue successful outcomes, a series of actions occurred in AC 2023 to ensure that students developed the 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 2022 assessment cycle results, the faculty implemented the following changes in 2023 to drive the cycle of improvement:

1. Faculty had frequent interaction with students. This interaction reinforced to the student the importance of producing quality work.
2. Faculty reviewed evaluation scores and counseled any student scoring below 90% on the quality of work and performance.
3. 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.

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 implemented the following changes in 2023 to drive the cycle of improvement:

1. Faculty had frequent interaction with students. This interaction reinforced to the student the importance of producing quality work.
2. Faculty reviewed evaluation scores and counseled any student scoring below 90% on the quality of work and performance.
3. 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 an individual's communication skills. Goal 4 assesses students' communication ability 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 healthcare, particularly with patients and radiologic technologists. The targets were met for Measure A and Measure B during the 2023 AC cycle.

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

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

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 2022 assessment cycle results, the faculty implemented the following changes in 2023 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 assessed students' written communication skills. The target was met for Measure A and unmet for Measure B. In 2023, the following actions occurred:

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

1. The peer-review process was mandatory for all student paper submissions.
2. The research proposal paper assignment explained further revision of ALHE 4520 (Research Methods) to include additional resources. An APA formatted template was added. Academic writing activities were provided to aid in the development of writing skills.
3. The faculty continued advising students to enroll in the special section ENGL 2110 incorporating APA format. Students are projected to 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 implemented the following changes in 2023 to drive the cycle of improvement:

1. The faculty revised the assignment instructions.
2. The faculty sent out reminders regarding the assignment's due date.
3. The faculty provided additional examples of brochures in the classroom setting.
4. The faculty discussed the importance of the assignment in class.

Plan of Action Moving Forward in 2024

Based on the evidence provided by the AC 2022-2023, the BSRS program will make the following changes for continuous program improvement in AC 2024-2025:

Goal 1: Students will be clinically competent radiologic technologists.

- SLO 1.1: Students will perform quality radiographic procedures.
  1. Faculty will review the clinical preceptors' comments and feedback per clinical rotation. This feedback will be shared with the students.
  2. Faculty will review evaluation scores and counsel any student scoring below 85% on work and performance quality.
  3. Faculty will strive to have frequent interaction with students. This interaction will reinforce to the student the importance of producing quality work.
  4. Faculty will post a 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 give students another mechanism to discuss their work and performance with faculty and peers. Positive dialog and constructive criticism can help the student perform better in the clinical setting.
  5. Students will be required to complete assignments in RadTech Bootcamp as part of their grade for each content area.
  6. Students will be required to attend tutoring if they are unsuccessful on previous lab tests before the comprehensive final exam.
  7. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique.
  8. The students will also be expected to utilize these videos independently in preparation for the final lab exam.
  9. Additional “open lab” practice opportunities will be scheduled.
  10. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
  11. 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 remind students how the late policy affects their grades.

2. Faculty will send out assignment deadline reminders.
3. Faculty discussed that when students miss taking an exam, their skills are not assessed; therefore, the measure was revised to calculate only averaging the exams taken.
4. Faculty will revise the trauma lab evaluation tool to correct weighted points and update items to match current equipment and practice in the clinical education setting.
5. Students will be required to attend tutoring if they are unsuccessful on previous RADS 3310 and 3820 lab tests before the trauma lab exam is given.
3. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos independently in preparation for the final lab exam.
4. Additional “open lab” practice opportunities will be scheduled.
5. Students will be 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.

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. Faculty will revise the trauma lab evaluation tool to correct weighted points and update items to match current equipment and practice in the clinical education setting.
2. Students will be required to attend tutoring if they are unsuccessful on previous RADS 3310 and 3820 lab tests before the trauma lab exam is given.
3. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique. The students will also be expected to utilize these videos independently in preparation for the final 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 per clinical rotation as scheduled.

- SLO 2.2: Students will critically evaluate and assess challenges within the healthcare administrative setting.
  1. Create an assignment checklist.
  2. Convert the assignment from a presentation to a report.
  3. Develop a rubric to match the assignment format.
  4. Create an assignment checklist.
  5. Provide a discussion board forum for students to post questions about the assignment.
  6. Encourage students to watch the assignment video.
  7. 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. The funds allocated from the president for the BSRS students will go toward conference registration.
  2. Faculty are requiring students to obtain a membership with LSRT.
  3. Faculty will require students to participate in LSRT competitive events. Students can choose from one of three competitions, which will count toward their clinical grade.
  4. Faculty will offer incentives to students in exchange for attending LSRT/ASRT conferences, participating in competitive events, and volunteering for student leadership opportunities.
  5. Faculty will facilitate review and prep sessions for LSRT student competitions.
  6. Faculty will recommend and approve service-learning project focus.
  7. Faculty will provide weekly announcements reminding students of upcoming due dates and assignment criteria.
  8. Faculty will recommend that students 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 per clinical rotation.
    3. Faculty will 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.

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 per clinical rotation.
    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 for every clinical rotation.
    4. Faculty will Accentuate the importance of adherence to the American Society of Radiologic Technologists (ASRT) Practice Standards three (educating patients), five (collaboration and collegiality).
- SLO: 4.2: Students will develop written communication skills.
    1. The peer-review process will remain mandatory for all student paper submissions.
    2. Faculty will encourage students to utilize the additional resources supporting the research proposal paper assignment: an APA formatted template and academic writing activities to aid in developing writing skills.
    3. The faculty will continue advising students to enroll in the special section ENGL 2110 incorporating APA format. Students are projected to enter the program more prepared and with better writing and APA skills.
    4. Faculty will add an assignment checklist.
    5. Faculty will send out reminders regarding the assignment's due date.
    6. The faculty will provide additional examples of brochures in the classroom setting.
    7. The faculty will discuss in class the importance of the assignment.