



NORTHWESTERN STATE

College of Nursing and School of Allied Health

Assessment Cycle 2024-2025

(Calendar year January to December 2024)

Bachelor of Science in Radiologic Sciences

Division or Department: School of Allied Health

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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's College of Nursing and School of Allied Health advances the mission of the University through innovative teaching, experiential service learning, and scholarship. The College of Nursing and School of Allied Health offers quality healthcare education to a diverse student population to achieve their goal of becoming responsible healthcare providers who improve the health of our region, state, and nation. (Effective September 1, 2024).

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.									
Student Learning Outcome		Tool	Measure	Results					
1.1	Students will perform quality 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.		2024	2023	2022	2021	2020
				N	34	48	34	43	28
				Met	34	48	33	43	28
				Mean	96.36	97.31	96.11	96.4	3.96
				Range	86-100	88-100	84-100	87-100	3.5-4.3
				%	100	100	97	100	100
		B. RADS 3820 (Fall Semester) Comprehensive Lab Final Exam	100% of students will achieve a score of 77% or higher.		2024	2023	2022	2021	2020
				N	32	37	52	43	44
				Met	30	36	44	30	29
				Mean	86.5	87	84	81	87
				Range	75-97	74-94	65-97	62-98	69-98
				%	93	97	84	70	66

Student Learning Outcome	Tool	Measure	Results					
1.2 Students will develop the assessment skills of an imaging professional.	A. ALHE 3840 (<i>Fall Semester</i>) 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.		2024	2023	2022	2021	2020
			N	38	44	48	44	45
			Met	36	37	45	44	38
			Mean	92	93.5	91.02	93	87
			Range	68-100	57-100	65.28-98.33	80-100	63-99
			%	95	84	93.75	100	84
	B. RADS 3820 (<i>Fall Semester</i>) Trauma Lab Exam	100% of students will achieve a score of 77% or higher.		2024	2023	2022	2021	2020
			N	32	37	52	43	44
			Met	31	34	48	38	42
			Mean	90	89.8	90.8	89.5	92.1
			Range	71-100	66-100	60-100	66-100	78-100
			%	96	92	92	88	95

SLO: 1.1 Students will perform quality 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 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 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
2024: Met- 100% of students achieved 85% or higher	2024: Unmet – 93% of students achieved 77% or higher
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

Measure A: RADS 4611: Clinical Preceptor Evaluation of Student Q16: Quality of work and performance:

In 2024, the target was met. This achievement was consistent with 2023. Taking into consideration the 5-year average, students are performing quality radiographic procedures. This measure is obtained from clinical student evaluations that quantify the students' quality of work and performance in the clinical setting.

Based on the analysis of 2023 results, the faculty made the following changes in 2024. Clinical faculty reviewed submitted clinical evaluations after each clinical rotation and shared the feedback with students. Students scoring below 85% on an evaluation were called in for a counseling session regarding the quality of work and performance. When the clinical preceptor selected average, below average, or unsatisfactory, the form prompted the preceptor to provide feedback/comments on why the student scored below the benchmark of above average. This feedback provided faculty with data for areas of student improvement.

As a result of these changes, the target was met in 2024. The changes demonstrate that the measure provides useful information for evaluating student's performance of quality procedures.

Measure B: RADS 3820 (Positioning II): Comprehensive Lab Final Exam: In 2024, the target was unmet. The target is 100% of the students scoring 77% or higher on the comprehensive lab final exam. In 2024, only 93% of the students scored 77% or higher, specifying that two students 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 2023 results, the faculty made the following changes in 2024 to drive the cycle of improvement. Students were required to complete assignments in RadTech Bootcamp as part of their grade for each content area. Students were required to attend tutoring if they were unsuccessful on previous lab tests before the comprehensive final exam. Additional "open lab" practices were scheduled.

As a result of these changes, in 2024, the target was still unmet; 100% of students did not score 77% or higher on the comprehensive lab final exam. Note, while the target was unmet, the range of scores was nearly consistent with 2023 and higher than the previous years.

In 2025, the faculty will make the following changes. Students who score below 80 on any exam will be required to adhere to an academic learning contract. Even though a score of 77 is passing, faculty want to support both students who are unsuccessful and barely passing the exam. Faculty will require students to complete a remediation for every exam that is below an 80 leading up to the final exam.

Decisions: In 2024, the target was met for measure A and unmet for measure B.

Measure A: RADS 4611: Clinical Preceptor Evaluation of Student Q16: Quality of work and performance: Based on the analysis of the 2024 assessment cycle results, even though the target was met, the faculty will implement the following activities in 2025 to drive the cycle of improvement:

1. NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores per rotation in the course moodle shell. If the technologist leaves a comment

in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."

2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
3. If a student scores less than 85% on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
4. Frequent interaction between faculty members and students to reinforce the importance of producing quality work.
5. 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: RADS 3820 (Positioning II): Comprehensive Lab Final Exam: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Students who score below 80% on any exam will be required to adhere to an academic learning contract and complete a remediation for each exam thus preparing the student for the comprehensive lab final exam.
2. Students will be required to complete assignments in RadTech Bootcamp as part of their grade for each content area.
3. Students will be required to attend tutoring if they are unsuccessful on previous lab tests before the comprehensive final exam.
4. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique.
5. The students will also be expected to utilize ASRT professional videos independently in preparation for the final lab exam.
6. Additional "open lab" practice opportunities will be scheduled.

7. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
8. 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 an imaging professional. 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 an imaging professional.	
Measure A: ALHE 3840 (Advanced Patient Care): Overall Assessment Tests	Measure B: RADS 3820 (Positioning 2): Trauma lab scenario
2024: Unmet- only 95% of students achieved 80% or higher.	2024: Unmet – only 96% of students achieved 77% or higher.
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

Measure A: ALHE 3840 (Advanced Patient Care): Overall Patient Assessment Tests: In 2024, the target was unmet, indicating that not all students achieved 80% or higher on the assessment tests. While the target was unmet, it is worth noting that there was some improvement when compared to the previous two years.

Based on the analysis of the 2023 results, the faculty made the following changes in 2024 to drive the cycle of improvement: Faculty reminded students of deadlines and how the late policy affects their grades. 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. Only the exams completed were factored in the class average.

As a result of these changes, the target was still unmet; only 95% of students scored 80% or higher on the overall patient assessment tests in ALHE 3840. While the target was unmet, this was an improvement over the 2023 and 2022 scores. In reviewing the individual students' progress, two students did not meet this measure because of technological issues related to the use of Respondus Lockdown browser proctoring platform.

In 2025, the faculty will make the following changes. Faculty will remind students of deadlines and how the late policy will affect their grades. At the start of the course, faculty will require students to complete a Respondus Lockdown browser orientation quiz and troubleshoot technological issues before the students take their first exam. The Respondus Lockdown browser information will be added to the syllabus, sent to students in announcements, and embedded in the course modules.

Measure B: RADS 3820 (Positioning II): Trauma Lab Scenario: In 2024, the target was unmet. The target is 100% of the students scoring 77% or higher on the trauma lab scenario exam. Only 96% 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 2023 results, the faculty made the following changes in 2024 to drive the cycle of improvement. Faculty reviewed the trauma lab evaluation tool and revised the weighted points. Faculty realized that the points were much steeper than the other lab tests. In addition, both campuses no longer use CR lab equipment. With the current direct radiography equipment systems, some items on the tool were deleted, while others were added to reflect current practice in the clinical education settings.

As a result of these changes, in 2024, the target was unmet; 96% of students scored 77% or higher on the trauma lab scenario exam. In reviewing the scores, only one student scored below the target. Even though the target was unmet, there was an overall improvement in the 2024 exam scores, indicating that these changes had a direct impact on the student's ability to develop the patient assessment skills of a radiographer.

In 2025, the faculty will make the following changes. Thankfully, a clinical agency donated two mobile units to the program in 2024. This is the first time the program has portable units on each campus. In addition to the current strategies, faculty will schedule students to practice trauma scenarios on campus in the simulation labs

using portable machines. Faculty will also provide trauma supplies and props, such as cervical collars, splints, etc., to simulate real trauma scenarios to improve the student's assessment skills for real practice. In addition, after using the revised trauma lab evaluation tool in 2024, faculty made notes of additional revisions for 2025.

Decisions:

In 2024, the targets for measures A and B were unmet.

Measure A: ALHE 3840 (Advanced Patient Care): Overall Patient Assessment Tests: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Faculty will require students to complete a Respondus Lockdown browser orientation quiz before completing subsequent modules for the course.
2. The Respondus Lockdown browser requirement will be clearly delineated in the syllabus and course announcements.
3. Faculty will help troubleshoot technology issues as they arise.
4. Faculty will remind students of how the late policy will affect their grades.
5. Faculty will send out assignment deadline reminders.

Measure B: RADS 3820 (Positioning II): Trauma Lab Scenario: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Faculty will schedule students to practice trauma scenarios on campus in the simulation labs using newly donated portable machines.
2. Faculty will also provide trauma supplies and props, such as cervical collars, splints, etc., to simulate real trauma scenarios to improve the student's assessment skills for real practice.
3. Faculty will revise the trauma lab evaluation tool based on observations during use in 2024.
4. 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.
5. 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.
6. Additional "open lab" practice opportunities will be scheduled.

7. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
8. 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 develop the assessment skills of an imaging professional thereby continuing to push the cycle of improvement forward.

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 (<i>Fall Semester</i>) Trauma Lab Exam	100% of students will achieve a score of 77% or higher.		2024	2023	2022	2021	2020	
			N	32	37	52	43	44	
			Met	31	34	48	38	42	
			Mean	90	89.8	90.8	89.5	92.1	
			Range	71-100	66-100	60-100	67-100	78-00	
			%	96	92	92	88	95	
	B. RADS 3911 (<i>Spring Semester</i>) 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.		2024	2023	2022	2021	2020	
			N	36	48	34	42	New Measure for 2021	
			Met	36	48	34	41		
			Mean	95	95.52	94.48	93.7		
			Range	86.67-100	86-100	86-100	78-100		
			%	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 (<i>Fall Semester</i>) QM Proposal Project Presentation	100% of students will achieve a score of 80% or higher.		2024	2023	2022	2021	2020	
			N	36	45	55	42	29	
			Met	36	36	48	37	28	
			Mean	93	87.1	87.63	89.54	85.69	
			Range	80-99	57-100	63-100	60-100	55-100	
			%	100	80	87	88	97	
	B. ALHE 4630 (<i>Spring Semester</i>) Management Case Study Project	100% of students will achieve a score of 80% or higher.		2024	2023	2022	2021	2020	
			N	43	37	No data due to COVID	29	33	
			Met	41	37		29	33	
			Mean	92	91.5		97	96.39	
			Range	72-100	80-96		93-100	80-100	
			%	95	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
2024: Unmet- only 96% of students achieved 77% or higher	2024: Met- 100% of students achieved 85% or higher
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

Measure A: RADS 3820 (Positioning II): Trauma lab scenario: In 2024, the target was unmet. The target is 100% of the students scoring 77% or higher on the trauma lab scenario exam. Only 96% 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 2023 results, the faculty made the following changes in 2024 to drive the cycle of improvement. Faculty reviewed the trauma lab evaluation tool and revised the weighted points. Faculty realized that the points were much steeper than the other lab tests. In addition, both campuses no longer use CR lab equipment. With the current direct radiography equipment systems, some items on the tool were deleted, while others were added to reflect current practice in the clinical education settings.

As a result of these changes, in 2024, the target was unmet; 96% of students scored 77% or higher on the trauma lab scenario exam. In reviewing the scores, only one student scored below the target. Even though the target was unmet, there was an overall improvement in the 2024 exam scores, indicating that these changes had a direct impact on the student's ability to develop the patient assessment skills of a radiographer.

In 2025, the faculty will make the following changes. Thankfully, a clinical agency donated two mobile units to the program in 2024. This is the first time the program has portable units on each campus. In addition to the current strategies, faculty will schedule students to practice trauma scenarios on campus in the simulation labs using portable machines. Faculty will also provide trauma supplies and props, such as cervical collars, splints, etc., to simulate real trauma scenarios to improve the student's assessment skills for real practice. In addition, after using the revised trauma lab evaluation tool in 2024, faculty made notes of additional revisions for 2025.

Measure B: RADS 3911 (Clinic III): Clinical Preceptor Evaluation of Student Q17: Adapt Routine to Patient Condition: In 2024, 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 2023 assessment results, the faculty made the following changes in 2024 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.

As a result of these changes, the target was met; 100% of students scored 85% or higher on the Clinical Preceptor evaluation. 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 2024, the target was unmet for measure A and met for measure B.

Measure A: RADS 3820 (Positioning II): Trauma lab scenario: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Faculty will schedule students to practice trauma scenarios on campus in the simulation labs using newly donated portable machines.
2. Faculty will also provide trauma supplies and props, such as cervical collars, splints, etc, to simulate real trauma scenarios to improve the student's assessment skills for real practice.
3. Faculty will revise the trauma lab evaluation tool based on observations during use in 2024.
4. 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.
5. 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.

6. Additional “open lab” practice opportunities will be scheduled.
7. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
8. 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.

Measure B: RADS 3911 (Clinic III): Clinical Preceptor Evaluation of Student Q17: Adapt Routine to

Patient Condition: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Each clinical rotation, the NSU clinical faculty will review the clinical preceptor evaluation of students and post the student’s clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student’s clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, “no comments provided on clinical preceptor evaluation.”
2. If the technologist’s comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
3. If a student scores less than 85 percent on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.

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.

Findings: The target for Measure A was met and unmet 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): QM Project	Measure B: ALHE 4630 (Healthcare Organization Management: (Case Study Project)
2024: Met- 100% of students achieved a score of 80% or higher.	2024: Unmet- only 95% of students achieved 80% or higher
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

Measure A: ALHE 4610 (Healthcare Quality): QM Project Report: In 2024, the target was met. The target is 100% of the students scoring 80% or higher on the quality management project. This measure focuses on the student's ability to analyze and identify quality management issues within a healthcare agency, develop a plan for improvement, and effectively communicate their recommendations to compliance standards within the industry.

Based on the analysis of the 2023 assessment cycle results, the faculty made the following changes in 2024 to drive the cycle of improvement. The ALHE 4610 course is taught in two different programs: the BSRS traditional program and the RT to BSRS program. In the Spring 2024 semester, ALHE 4610 was offered for the RT to BSRS non-clinical students. Faculty piloted a revised version of the QM project assignment, in which the presentation was converted into a QM guided report. The RT to BSRS non-clinical students involved in this pilot assignment scored lower on this pilot project assignment than the previous QM presentation scores among both the RT to BSRS students and traditional BSRS students. As a result of this pilot project assignment, the faculty reverted back to the QM presentation for the traditional BSRS students in the Fall of 2024. The data reported in this assessment only reflects the BSRS traditional radiography students from Fall 2024. Faculty required the traditional radiography students to submit their QM Proposal project assignment as a narrated PowerPoint presentation to Feedback Fruits in Teams. Students were graded in three areas: their proposal submission, feedback that they received from their peers, and their overall reflection on their own proposal.

As a result of these changes, in 2024, the target was met; 100% of students scored 80% or higher on the quality management presentation project. The results were higher than 2023, demonstrating that students have the ability to critically evaluate and assess challenges within the healthcare administrative setting.

Measure B: ALHE 4630 (Healthcare Organization and Management): Case Study Project: In 2024, the target was unmet. Only 95% of students scored an 80% or higher on their case management study project. This target measures the student's ability to portray a healthcare manager, analyze a case study, identify issues in a healthcare setting, and develop a resolution.

Based on the analysis of the 2023 assessment cycle results, the faculty made the following changes in 2024 to drive the cycle of improvement. Faculty added an assignment checklist to help students stay on track with the assignment criteria. However, the target was still unmet. Only 95% of students scored 80% or higher on their case management study project. When reviewing the data, the faculty realized that there were two students who scored below 80% on this target. These student's assignment submissions were missing sections of the assignment criteria and therefore were incomplete. However, all other students who followed the assignment guidelines successfully met the target.

Moving forward in 2025 the faculty plan to revise the case study guidelines to include clear instructions for all assignment criteria. Faculty will update the assignment checklist. Faculty will require students to email the instructor their case study topic for approval. Faculty will require students to post their case study topic to a shared discussion forum. Faculty anticipates these steps will help students avoid missing important assignment criteria.

Decisions: In 2024, the target was met for measure A and unmet for measure B.

Measure A: ALHE 4610 (Healthcare Quality): QM Project Report: Based on the analysis of the 2024 assessment cycle results, while the target was met, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Faculty plan to revise the QM proposal project and require completing multiple worksheets throughout the course that are tailored to the specified component that is to be included in their final QM proposal presentation.

2. Students will be required to email their proposal topic to the instructor for approval before completing the worksheets that will guide them to their final QM presentation project.
3. Based on the new assignment format, faculty will revise the rubric to match.
4. Faculty will make notes when using the rubric in case the rubric needs additional updates.

Measure B: ALHE 4630 (Healthcare Organization and Management): Case Study Project: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Faculty plan to revise the case study assignment guidelines.
2. Faculty plan to update the assignment checklist.
3. Faculty will require students to email the instructor the case study topic.
4. Students will be required to submit their topic to discussion assignment forum.
5. Faculty will monitor the open discussion board forum that allows students to post questions about the assignment.
6. Faculty will encourage students to watch the assignment video.
7. 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, thereby continuing to push the cycle of improvement forward.

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 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.		2024	2023	2022	2021	2020
			N	67	84	82	43	New Measure for 2021
			Met	28	27	30	23	
			Mean	N/A	N/A	N/A	N/A	
			Range	N/A	N/A	N/A	N/A	
			%	41	32	36	53	
	B. ALHE 3840 (Fall Semester) Service-Learning Project	100% of students will achieve a score of 80% or higher.		2024	2023	2022	2021	2020
			N	38	44	31	46	No data due to COVID
			Met	36	44	31	42	
			Mean	97	94.5	98.06	96	
			Range	63-100	80-100	80-100	50-100	
			%	95	100	100	91	
Student Learning Outcome	Tool	Measure	Results					
3.2 Students will integrate adherence to professional behaviors.	A. RADS 4611 (Fall Semester): Clinical Preceptor Evaluation of Student Q2: Professional Behavior	100% of students will achieve an average score of 90% or higher on Clinical Preceptor Evaluations.		2024	2023	2022	2021	2020
			N	34	48	34	43	28
			Met	34	48	34	43	25
			Mean	99.19	98.9	98.39	98.4	4.22
			Range	93.33-100	94-100	92-100	90-100	3.91-5
			%	100	100	100	100	89
	B. RADS 3911 (Spring Semester): Clinical Preceptor Evaluation of Student Q2: Professional Behavior	100% of students will achieve an average score of 90% or higher on Clinical Preceptor Evaluations.		2024	2023	2022	2021	2020
			N	36	48	34	42	29
			Met	36	48	34	41	24
			Mean	97.58	98.23	98.18	97.9	4.48
			Range	90-100	94-100	92-100	85-100	3.99-5
			%	100	100	100	98	83

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
2024: Met- 41% of students demonstrated involvement in professional associations	2024: Unmet- 95% of students achieved 80% or higher
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

Measure A: RADS 4511 (Clinic IV): Student Demonstrated Involvement in Professional Associations. In 2024, the target was met. A total of 67 junior and senior radiologic science students were assessed for involvement in professional associations. Of these, 28 students (41%) actively participated in the state conference LSRT events, including student competitions and student leadership programs. Notable achievements include 6 students winning the LSRT Annual Quiz Bowl and 3 students participating in the Student Leadership Development Program (SLDP). 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.

Based on the analysis of the 2023 assessment cycle results, the faculty made the following changes in 2024 to drive the cycle of improvement. Faculty guided students in several fundraisers to offset the expenses of attending state conference meetings. For one fundraiser event, the university president matched a local donor's contribution. The faculty asked for the funds that the university president allocated to the BSRS students to be

applied to LSRT conference registration. As a result, the conference registration for all students were paid in full.

As a result of these changes, in 2024, the target was met; 41% of students demonstrated involvement in professional associations. These changes had a direct impact on the student's understanding of professional advocacy, thereby continuing to push the cycle of improvement forward.

Measure B: ALHE 3840 (Advanced Patient Care): Service-Learning Project: In 2024, the target was unmet. The target is to have 100% of students achieve an 80% or higher on the service-learning project. Only 95% met the benchmark. This measure asks students to demonstrate service to the profession and community.

Based on the analysis of the 2023 results, the faculty made the following changes in 2024 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 2024, the target was still unmet; 100% of students scored 80% or higher on the service-learning project. In looking at the student's projects, there were 2 students who did not complete the project and had missing parts of the assignment.

To address this deficiency, in 2025, faculty will send out frequent reminders to students to complete the project in a timely manner and not wait until the last minute to complete the service hours. In addition, faculty will also send out the assignment rubric emphasizing how much the assignment is worth toward their final grade. Faculty will remind students of the project deadlines and requirements. Faculty will provide students with a list of pre-approved volunteer opportunities. Student can also submit their own for faculty approval. Students will be required to submit their "plan of action" regarding which location they wish to conduct their service hours within two weeks of the start of the semester so that faculty will have time to approve the proposed volunteer events.

Decisions: In 2024, measure A was met, and B was unmet.

Measure A: RADS 4511 (Clinic IV): Student Demonstrated Involvement in Professional Associations.

Based on the analysis of the 2024 assessment cycle results, while the target was met, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Faculty will help guide students with fundraiser opportunities to support attendance at professional conferences.
2. Faculty will encourage students to obtain memberships with LSRT and ASRT.
3. Faculty will encourage students to participate in state competition (LSRT) competitive events. Students can choose from one of the three state conference competitions, submit a paper, exhibit, or participate in quiz bowl.
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: ALHE 3840 (Advanced Patient Care): Service-Learning Project: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. The faculty will recommend prompt completion of the service-learning project.
2. Faculty will provide weekly announcements reminding students of upcoming due dates, assignment criteria, and how much this assignment affects their final grade.
3. Faculty will provide students with a list of pre-approved volunteer opportunities.
4. Students can also submit their own volunteer events for faculty approval.
5. Students will be required to submit their “plan of action” regarding their service-learning location.
6. 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
2024: Met- 100% of students achieved 90% or higher	2024: Met- 100% of students achieved 90% or higher
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

Measure A: Clinical Preceptor Evaluation of Student Q2: Professional Behavior (RADS 4611, Clinic 5):

In 2024, the target was met. The target is to have 100% of students achieve an average score of 90% or higher on Clinical Preceptor Evaluation regarding their professional behavior in the CES, in particular, during their 5th clinical level.

Based on the analysis of the 2023 results, the faculty made the following changes in 2024 to drive the cycle of improvement. Faculty made frequent surprise visits to clinical sites and interacted with students to reinforce the student's professional behavior. Faculty reviewed submitted evaluations, and any student scoring below 90% on an evaluation was called in for a counseling session regarding their behavior in the CES.

As a result of the changes in 2024, 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: Clinical Preceptor Evaluation of Student Q2: Professional Behavior (RADS 3911, Clinic 3). In

2024, the target was met; 100% of students scored 90% or higher on the Clinical Preceptor evaluation of student professional behavior in the CES during their 3rd clinical level.

Based on the analysis of the 2023 results, the faculty made the following changes in 2024 to drive the cycle of improvement. Faculty made frequent surprise visits to clinical sites and interacted with students to reinforce the

student's professional behavior. Faculty reviewed submitted evaluations, and any student scoring below 90% on an evaluation was called in for a counseling session regarding their behavior in the CES.

As a result of these changes, in 2024, 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.

Decisions: In 2024, measures A and B met the targets.

Measure A: Clinical Preceptor Evaluation of Student Q2: Professional Behavior (RADS 4611, Clinic 5):

Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Each clinical rotation, the NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."
2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
3. If a student scores less than 85% on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
4. Faculty will visit clinical sites frequently to reinforce the student's professional behavior in CES.

Measure B: Clinical Preceptor Evaluation of Student Q2: Professional Behavior (RADS 3911, Clinic 3).

Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. For each clinical rotation, NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."

2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
3. If a student scores less than 85 percent on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
4. Faculty will visit clinical sites frequently to reinforce the student's professional behavior in CES.

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 Semester): 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.		2024	2023	2022	2021	2020	
			N	34	48	34	43	28	
			Met	33	48	34	42	26	
			Mean	96.18	97.37	97.68	98	4.09	
			Range	80-100	92-100	90-100	88-100	3.88-4.24	
			%	97	100	100	98	93	
	B. RADS 4611 (Fall Semester): 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.		2024	2023	2022	2021	2020	
			N	34	48	34	43	28	
			Met	33	48	34	43	27	
			Mean	96.91	98.44	97.98	98	4.22	
			Range	84-100	93-100	92-100	90-100	3.91-4.34	
			%	97	100	100	100	96	

Student Learning Outcome	Tool	Measure	Results					
4.2 Students will develop written communication skills.	A. ALHE 4520 (Fall Semester): Research Proposal Assignment	100% of students will achieve a score of 80% or higher.		2024	2023	2022	2021	2020
			N	36	44	34	31	New Measure for 2021
			Met	36	44	34	27	
			Mean	95.3	91.2	94.17	90	
			Range	80-100	81-100	82-100	75-100	
			%	100	100	100	87%	
	B. RADS 4530 (Spring Semester): Patient Education Brochure Assignment	100% of students will achieve a score of 85% or higher.		2024	2023	2022	2021	2020
			N	No	85	34	42	29
			Met	Data	82	32	42	28
			Mean	collected.	95.5	90.7	95	94.5
			Range	Last	55-100	70-100	85-100	70-100
			%	taught 2023.	96	94	100%	96

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 regarding communication with patients and technologists.

Findings: The targets were unmet for Measures 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
2024: Unmet- 97% of students achieved at least 90%	2024: Unmet- 97% of students achieved at least 90
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

Measure A: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q4: Communication with patients: In 2024, the target was unmet; The target was that 100% of students will achieve an average score of 90% or higher on the Clinical Preceptor evaluation of students' oral communication skills with patients. Only 97% of clinical students achieved this measurement.

Based on the analysis of the 2023 results, the faculty made the following changes in 2024 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 2024, the target was still unmet. 100% of students did not achieve an average score of 90% or higher on the Clinical Preceptor evaluation of students' oral communication skills with patients. In reviewing why the target was unmet, there was one student who scored below 90%. This single student was called in for a counseling session and advised on how to improve patient communication skills.

In 2025, the faculty will make the following changes. NSU clinical faculty will review the Clinical Preceptor evaluation of students each clinical rotation and post the students' clinical evaluation scores in the course moodle shell. If clinical preceptors (CPs) leave a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the course moodle gradebook for the student to see the feedback. If no comments are provided, a clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation." If a student scores less than 85 percent on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.

Measure B: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q5: Communication with technologists: In 2024, the target was unmet; 97% of students achieved an average score of 90% or higher on the Clinical Preceptor evaluation of student's communication with technologists in the CES.

Based on the analysis of the 2023 results, the faculty made the following changes in 2024 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 2024 the target was still unmet. 100% of students did not achieve an average score of 90% or higher on the Clinical Preceptor evaluation of students' oral communication skills with technologists. In reviewing why the target was unmet, there was one student who scored below the target. The student was called in for counseling and was advised on how to improve their communication skills with technologists.

In 2025, the faculty will make the following changes. NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores per rotation in the course moodle shell. If clinical preceptors (CPs) leave a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the course moodle gradebook for the student to see the feedback. If no comments are provided, a clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation." If a student scores less than 85 percent on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.

Decisions: In 2024, measures A and B targets were unmet.

Measure A: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q4: Communication with patients: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. For each clinical rotation, NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."
2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
3. If a student scores less than 85% on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
4. Faculty will visit clinical sites frequently to reinforce the student's communication with patients.

Measure B: RADS 4611 (Clinic 5): Clinical Preceptor Evaluation of Student Q5: Communication with technologists: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. For each clinical rotation, NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."
2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
3. If a student scores less than 85% on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
4. Faculty will visit clinical sites frequently to reinforce the student's communication with technologists.

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

2024: Met- 100% of students achieved an 80% or higher	2024: No data collected. Last taught 2023.
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

Measure A: ALHE 4520 Research Proposal Paper: In 2024, the target was met; 100% of students scored 80% or higher on the research proposal paper. This measure assesses students' written communication skills.

Based on the analysis of the 2023 results, the faculty made the following changes in 2024 to drive the cycle of improvement. Faculty piloted the implementation of Feedback Fruits for all paper submissions, which included a peer review strategy for students. This allowed the student to have their paper pre-graded before submitting it to the instructor. Feedback Fruits software included a feature that highlighted grammatical errors and gave the students suggestions for improvement. Feedback Fruits allowed the instructor to utilize a rubric for grading. 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.

As a result of these changes, in 2024, 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): Patient Education Brochure Assignment: In 2024, due to a transition in curriculum changes, the RADS 4530 course was taught in 2023, in which both junior and senior cohorts took the course in the same semester. For the BSRS courses sequence, RADS 4530 was moved from being taught in the Fall semester 9 to being taught in the Spring semester 7. This curriculum change was submitted to CRC and approved.

There was no data collected in 2024 for an analysis.

As a result of the curriculum changes, data will be collected in 2025.

Decisions: In 2024, the target was met for measure A. There was no data collected for measure B.

Measure A: ALHE 4520 Research Proposal Paper: Based on the analysis of the 2024 assessment cycle results, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Feedback Fruits will be utilized for all paper submissions.
2. The peer-review process will remain mandatory for all student paper submissions.
3. Faculty will have students submit their paper pre-graded before submitting it to the instructor.
4. Faculty will utilize Feedback Fruits grading rubric.
5. 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.
6. 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: RADS 4530 (Radiation Protection): Patient Education Brochure Assignment: Based on the analysis of the 2023 assessment cycle results, *when the course was last taught*, the faculty will implement the following changes in 2025 to drive the cycle of improvement:

1. Faculty will convert the Brochure Assignment to a Patient Education Infographic Assignment.
2. Faculty will revise the assignment checklist to match.
3. Faculty will revise the grading rubric to match.
4. Faculty will provide sample Patient Education Infographic 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 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. The following reflects all the changes implemented to drive the continuous process of seeking improvement in AC 2023-2024. These changes are based on the knowledge gained through the AC 2022-2023 results analysis.

Summary of Goal 1: Students will be clinically competent radiologic technologists.

SLO 1.1 Students will perform quality procedures.

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

1. Clinical faculty reviewed submitted clinical evaluations after each clinical rotation and shared the feedback with students.
2. Students scoring below 85% on an evaluation were called in for a counseling session regarding the quality of work and performance.
3. When the clinical preceptor selected average, below average, or unsatisfactory, the form prompted the preceptor to provide feedback/comments on why the student scored below the benchmark of above average. This feedback provided faculty with data for areas of student improvement.

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

1. Students were required to complete assignments in RadTech Bootcamp as part of their grade for each content area.
2. Students were required to attend tutoring if they were unsuccessful on previous lab tests before the comprehensive final exam.
3. Additional “open lab” practices were scheduled.

SLO 1.2 Students will develop the assessment skills of an imaging professional.

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

1. Faculty reminded students of deadlines and how the late policy affects their grades.
2. 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. Only the exams completed were factored in the class average.

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

1. Faculty reviewed the trauma lab evaluation tool and revised the weighted points.

2. With the current direct radiography equipment systems, some items on the tool were deleted, while others were added to reflect current practice in the clinical education settings.

Summary of Goal 2: Students will demonstrate critical thinking skills.

SLO 2.1 Students will evaluate a clinical situation and perform accordingly using critical thinking skills.

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

1. Faculty reviewed the trauma lab evaluation tool and revised the weighted points.
2. With the current direct radiography equipment systems, some items on the tool were deleted, while others were added to reflect current practice in the clinical education settings.

Measure B: Based on the analysis of the 2023 assessment cycle results, the faculty implemented the following changes in 2024 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.

SLO 2.2 Students will critically evaluate and assess challenges within the healthcare administrative setting.

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

1. As a result of this pilot project assignment, the faculty reverted back to the QM presentation for the traditional BSRS students in the Fall of 2024.
2. Faculty required students to submit their QM Proposal project assignment as a narrated PowerPoint presentation to Feedback Fruits in Teams.

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

1. Faculty added an assignment checklist to help students stay on track with the assignment criteria. However, the target was still unmet.

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

SLO 3.1 Students will demonstrate an understanding of professional advocacy.

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

1. Faculty guided students in several fundraisers to offset the expenses of attending state conference meetings.
2. For one fundraiser event, the university president matched a local donor's contribution. The faculty asked for the funds that the university president allocated to the BSRS students to be applied to LSRT conference registration. As a result, the conference registration for all students were paid in full.

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

1. Faculty implemented the revised guidelines for the assignment along with a video with the expectations for the assignment.

SLO 3.2 Students will integrate adherence to professional behaviors.

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 implemented the following changes in 2024 to drive the cycle of improvement:

1. Faculty made frequent surprise visits to clinical sites and interacted with students to reinforce the student's professional behavior.
2. Faculty reviewed submitted evaluations, and any student scoring below 90% on an evaluation was called in for a counseling session regarding their behavior in the CES.

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 implemented the following changes in 2024 to drive the cycle of improvement:

1. Faculty made frequent surprise visits to clinical sites and interacted with students to reinforce the student's professional behavior.
2. Faculty reviewed submitted evaluations, and any student scoring below 90% on an evaluation was called in for a counseling session regarding their behavior in the CES.

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

SLO 4.1 Students will develop oral communication skills.

Measure A: Based on the analysis of the 2023 assessment cycle results, the faculty implemented the following changes in 2024 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.

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

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

SLO 4.2 Students will develop written communication skills.

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

1. Faculty piloted the implementation of Feedback Fruits for all paper submissions, which included a peer review strategy for students.
2. 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.

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

1. No data was collected in 2024 for analysis. As a result of the curriculum changes, data will be collected in 2025.

Plan of Action Moving Forward in 2025

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.

- SLO 1.1: Students will perform quality procedures.
 1. NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores per rotation in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback

section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."

2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
 3. If a student scores less than 85 percent on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
 4. Frequent interaction between faculty members and students to reinforce the importance of producing quality work.
 5. 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.
 6. Students who score below 80 on any exam will be required to adhere to an academic learning contract and complete remediation for each exam thus preparing the student for the comprehensive lab final exam.
 7. Students will be required to complete assignments in RadTech Bootcamp as part of their grade for each content area.
 8. Students will be required to attend tutoring if they are unsuccessful on previous lab tests before the comprehensive final exam.
 9. The tutor will be asked to integrate the use of the ASRT professional video series on positioning and image critique.
 10. The students will also be expected to utilize these videos independently in preparation for the final lab exam.
 11. Additional "open lab" practice opportunities will be scheduled.
 12. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
 13. 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 an imaging professional.
 1. Faculty will require students to complete a Respondus Lockdown browser orientation quiz before completing subsequent modules for the course.
 2. The Respondus Lockdown browser requirement will be clearly delineated in the syllabus and course announcements.
 3. Faculty will help troubleshoot technology issues as they arise.

4. Faculty will remind students of how the late policy will affect their grades.
5. Faculty will send out assignment deadline reminders.
6. Faculty will schedule students to practice trauma scenarios on campus in the simulation labs using newly donated portable machines.
7. Faculty will also provide trauma supplies and props, such as cervical collars, splints, etc., to simulate real trauma scenarios to improve the student's assessment skills for real practice.
8. Faculty will revise the trauma lab evaluation tool based on observations during use in 2024.
9. 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.
10. 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.
11. Additional "open lab" practice opportunities will be scheduled.
12. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.
13. 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.

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 schedule students to practice trauma scenarios on campus in the simulation labs using newly donated portable machines.
 2. Faculty will also provide trauma supplies and props, such as cervical collars, splints, etc., to simulate real trauma scenarios to improve the student's assessment skills for real practice.
 3. Faculty will revise the trauma lab evaluation tool based on observations during use in 2024.
 4. 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.
 5. 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.
 6. Additional "open lab" practice opportunities will be scheduled.
 7. Students are encouraged to record simulation videos during lab instruction and share their videos in their class GroupMe app.

8. 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.
 9. Each clinical rotation, the NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."
 10. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
 11. If a student scores less than 85 percent on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
- SLO 2.2: Students will critically evaluate and assess challenges within the healthcare administrative setting.
 1. Faculty plan to revise the QM proposal project and require completing multiple worksheets throughout the course that are tailored to the specified component that is to be included in their final QM proposal presentation.
 2. Students will be required to email their proposal topic to the instructor for approval before completing the worksheets that will guide them to their final QM presentation project.
 3. Based on the new assignment format, faculty will revise the rubric to match.
 4. Faculty will make notes when using the rubric in case the rubric needs additional updates.
 5. Faculty plan to revise the case study assignment guidelines.
 6. Faculty plan to update the assignment checklist.
 7. Faculty will require students to email the instructor the case study topic.
 8. Students will be required to submit their topic to discussion assignment forum.
 9. Faculty will monitor the open discussion board forum that allows students to post questions about the assignment.
 10. Faculty will encourage students to watch the assignment video.
 11. 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 an understanding of professional advocacy.

1. Faculty will help guide students with fundraiser opportunities to support attendance at professional conferences.
 2. Faculty will encourage students to obtain membership with LSRT and ASRT.
 3. Faculty will encourage students to participate in state competition (LSRT) competitive events. Students can choose from one of the three state conference competitions, submit a paper, exhibit, or participate in quiz bowl.
 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 prompt completion of the service-learning project.
 7. Faculty will provide weekly announcements reminding students of upcoming due dates, assignment criteria, and how much this assignment affects their final grade.
 8. Faculty will provide students with a list of pre-approved volunteer opportunities.
 9. Students can also submit their own volunteer events for faculty approval.
 10. Students will be required to submit their "plan of action" regarding their service-learning location.
 11. 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. Each clinical rotation, clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."
 2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
 3. If a student scores less than 85% on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
 4. Faculty will visit clinical sites frequently to reinforce the student's professional behavior in CES.

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

- SLO: 4.1: Students will develop oral communication skills.

1. For each clinical rotation, NSU clinical faculty will review the clinical preceptor evaluation of students and post the student's clinical evaluation scores in the course moodle shell. If the technologist leaves a comment in the student's clinical performance evaluation, the faculty will copy and paste the comments into the feedback section of the moodle course gradebook for the student to see the feedback. If no comments are provided, the clinical faculty member will put in the feedback section, "no comments provided on clinical preceptor evaluation."
 2. If the technologist's comments warrant an in-person meeting, the Clinical coordinator will schedule the student to meet with them in person.
 3. If a student scores less than 85 percent on clinical preceptor evaluation, the clinical coordinator will schedule a one-on-one meeting with the student to discuss the evaluation score. These clinical preceptor evaluation scores are then revisited during mid-term and final evaluations.
 4. Faculty will visit clinical sites frequently to reinforce the student's communication with patients.
 5. Faculty will visit clinical sites frequently to reinforce the student's communication with technologists.
- SLO: 4.2: Students will develop written communication skills.
 1. Feedback Fruits will be utilized for all paper submissions.
 2. The peer-review process will remain mandatory for all student paper submissions.
 3. Faculty will have students submit their paper pre-graded before submitting it to the instructor.
 4. Faculty will utilize Feedback Fruits grading rubric.
 5. 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.
 6. 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.
 7. Faculty will convert the Brochure Assignment to a Patient Education Infographic Assignment.
 8. Faculty will revise the assignment checklist to match.
 9. Faculty will revise the grading rubric to match.
 10. Faculty will provide sample Patient Education Infographic Assignment