Goal 1– Students will demonstrate clinical competence					
Student Learning Outcomes	**Measurement Tools** – A minimum of 2 measuring tools/assessment methods per student learning outcome is required.	**Timeframe** – A formative measure used (while students are in the first year of the program), and a summative measure used (when students are close to program completion and/or graduates) is recommended for best practices.	**Benchmark** Should be a score above passing. Examples are: A percentage score, A score based on a scale, such as a Likert score (include the scale)	**Actual Data Results** Include the number of students evaluated	**Past 3 – 5 years of Data Results –** Identify each year's results separately for comparison purposes.
1.1 Students will demonstrate the ability to position patients to produce diagnostic images	Self-evaluation, Procedure Objectives & Technical Skills section, #9 (Performs procedures accurately and thoroughly in accordance with department protocol)	1st Year-spring semester Clinical Coordinator	Students will score "Satisfactory" or above (*range: Needs Improvement, Satisfactory, Excels)*	15/16 students scored 'satisfactory' or above; 1 student scored themselves as 'Excellent' but the instructor marked them down to 'needs improvement'	2020-2021 (16 of 16 students scored "Satisfactory" or above) 2019-2020 (18-18 scored satisfactory or above); 2018-2019 (8-10 satisfactory or above);
	Instructor evaluation of student clinical performance (late April-early May of 5th semester). Procedures Objectives & Technical Skills section, question # 9 [Completes the needed projection and position of the patient with accuracy to best demonstrate the anatomy of interest (angles tube correctly, detents, positions correctly, aligns tube and Bucky, etc.) Semester 5– acceptable image	2nd Year-spring semester Clinical Coordinator	Students will score "Consistently, but not always/A little above Average" or above (*Range: * please see end of document)*	15 of 15 students scored "Consistently, but not always/A little above Average" or above	2020-2021 (18 of 18 students scored "Consistently, but not always/A little above Average" or above) 2019-2020 (9 scored consistently, but not always/ a little above average or above, 5 scored always, and 4 scored consistently 2018-2019 (11-11 at the level of expectations or above);

	produced 95%+ of the time.]				
1.2 Students will provide appropriate patient care by responding to patient needs.	Self-evaluation, Patient Care & Safety section, #6 (Assures patient safety at all times)		Students will score "Satisfactory" or above		2020-2001 (15 of 16 students scored "Satisfactory" or above 1 of 16 students did not answer the question) 2019-2020 (18-18 scored satisfactory or above); 2018-2019 (8-10 satisfactory or above);
	Instructor evaluation of student clinical performance (late April-early May of 5th semester). Critical Thinking skills section, question # 1. [Promptly evaluates patient's physical or cognitive limitations which influence how procedures are performed using sound reasoning and judgement and responds appropriately by making needed modifications to communication and/or positioning to safely perform the procedure. Semester 5 – Student can interpret the patient's condition, and can respond without		Students will score "Consistently, but not always/A little above Average" or above		2020-2001 (18 of 18 students scored "Consistently, but not always/A little above Average" or above) 2019-2020 (9 scored consistently, but not always/ a little above average or above, 5 scored always, and 4 scored consistently 2018-2019 (11-11 at the level of expectations or above);

	guidance from the technologist.]				

Student Learning Outcome 1.1

Analysis: tutoring during the first semester was a mandatory requirement. Surprise tests have proven effective in supporting this outcome. It was mentioned that a comprehensive lab test for RAD 111 and RAD 112 could be considered. The college also offers peer tutoring, so 2nd year students could be paid by the college to tutor first year students. This would benefit both groups, since the 2nd year students would need to complete review to effectively tutor first year students

Action Plan based on Analysis: Continue tutoring as budget allows, continue surprise testing. continue to access

Results/Improvement(s) noted based on the action plans that were implemented: Consider comprehensive lab testing for RAD 111 and RAD 112, contact student services about peer tutoring

Re-evaluation Date: Summer 2024

Student Learning Outcome 1.2

Analysis: A wide range of clinical sites allows students to interact with several different patient populations. The addition of Cone Health, level 2 trauma center will provide more opportunity in his area. Hands on simulation in RAD 110 has proven effective in supporting this outcome. The program could explore simulation with nursing and other areas of the college

Action Plan based on Analysis: continue simulation in RAD 110, continue to access

Results/Improvement(s) noted based on the action plans that were implemented: Explore development of additional simulation in RAD 110 and seek opportunity to complete simulation with nursing and other allied health areas.

Re-evaluation Date: Summer 2024

Goal 2– Students will learn to think critically and how to apply problem solving strategies					
Student Learning Outcomes	**Measurement Tools** – A minimum of 2 measuring tools/assessment methods per student learning outcome is required.	**Timeframe** – A formative measure used (while students are in the first year of the program), and a summative measure used (when students are close to program completion and/or graduates) is recommended for best practices.	**Benchmark** Should be a score above passing. Examples are: A percentage score, A score based on a scale, such as a Likert score (include the scale)	**Actual Data Results** Include the number of students evaluated	**Past 3 – 5 years of Data Results –** Identify each year's results separately for comparison purposes.
2.1 Students will demonstrate the ability to modify standard positioning techniques.	Self-evaluation, Critical Thinking Skills section, #1 (Promptly evaluates patient's physical or cognitive limitations which influence how procedures are performed.)		Students will score "Satisfactory" or above		2020-2021 (16 of 16 students scored "Satisfactory" or above) 2019-2020 (16 satisfactory or above, 2 needs improvement); 2018-2019 (7 satisfactory or above, 1 needs improvement)
	Instructor evaluation of student clinical performance (late April-early May of 5th semester). Critical Thinking skills section, question # 2 [Student is able to formulate equipment modifications based on patient condition and/or ability to safely perform the		Students will score "Consistently, but not always/A little above Average" or above		2020-2021 (18 of 18 students scored "Consistently, but not always/A little above Average" or above) 2019-2020 (9 scored consistently, but not always, 4 consistently, 1 most of the time); 2018-

	procedure. Semester 5 – student recognizes the need to modify from routine; student can devise and execute a plan to obtain diagnostic images with little to no coaching]				2019 (11 at the level of expectations or above)
2.2 Students will recognize imaging errors.	Self-evaluation, Procedure Objectives & Technical Skills section, #12 (Can accurately critique images for quality)		Students will score "Satisfactory" or above		2020-2021 (12 of 16 students scored "Satisfactory" or above 4 of 16 students scored "Needs Improvement"), 2019-2020 (14 satisfactory or above, 4 needs improvement); 2018-2019 (5 satisfactory, 2 needs improvement)
	Instructor evaluation of student clinical performance (late April-early May of 5th semester). Procedure Objectives & Technical Skills section, # 20 (Evaluate the completed image for acceptable quality to include: a. Anatomical demonstration b. Alignment c. Radiographic brightness and contrast d. Image identification e. Visibility and correct placement of lead markers f. Visibility of radiation protection such as		Students will score "Consistently, but not always/A little above Average" or above		2020-2021 (18 of 18 students scored "Consistently, but not always/A little above Average" or above), 2019-2020 (6 always, 2 consistently, 1 most of the time); 2018-2019 (at the level of expectations or above)

	collimation and shielding).				

Student Learning Outcome 2.1

Analysis: Students report that evening rotations allowed them to gain skill in this area. The program recently added Cone Health to its list of clinical affiliates. This is a level 2 trauma center, with a very busy OR. The department manager also reports the department has lots of opportunity for mobile imaging. Trauma imaging and mobile simulation occurred in RAD 211, portable simulation was also added to RAD 111. Additionally, students were able to observe a trauma simulation at Baptist Hospital with debrief. After that, the ER imaging manger took the students back to the department for trauma imaging education.

Action Plan based on Analysis: continue afternoon/evening rotations, trauma education, and portable exam simulation. Continue to request to attend trauma simulation at Baptist. continue to access

Results/Improvement(s) noted based on the action plans that were implemented: portable simulation was added to RAD 111, Cone Health was added as a clinical site

Re-evaluation Date: Summer 2024

Student Learning Outcome 2.2

Analysis: Although the assessment tool indicates meeting the benchmark in this area, students report verbally they do not feel comfortable in this area. As a result Tami required students to complete their image analysis workbook over the summer. Anna will add more image analysis to lab time in RAD 211. Program faculty were encouraged to review image analysis with students during downtime at clinical.

Action Plan based on Analysis: continue to have students complete the image analysis workbook, and increase image analysis lab activities in RAD 211. Continue to encourage faculty to review image analysis during clinical downtime. continue to access

Results/Improvement(s) noted based on the action plans that were implemented: to be reported after additional data is gathered

Re-evaluation Date: Summer 2024

Goal 3– Students will model professionalism.					
Student Learning Outcomes	**Measurement Tools** – A minimum of 2 measuring tools/assessment methods per student learning outcome is required.	**Timeframe** – A formative measure used (while students are in the first year of the program), and a summative measure used (when students are close to program completion and/or graduates) is recommended for best practices.	**Benchmark** Should be a score above passing. Examples are: A percentage score, A score based on a scale, such as a Likert score (include the scale)	**Actual Data Results** Include the number of students evaluated	**Past 3 – 5 years of Data Results –** Identify each year's results separately for comparison purposes.
3.1 Students will demonstrate professional behaviors.	Self-evaluation, Initiative section, #3 (Performs or assists technologist with exams without being asked/told.)		Students will score "Satisfactory" or above		2020-2021 (16 of 16 students scored "Satisfactory" or above), 2019-2020 (18 satisfactory or above) 2018-2019 (8 satisfactory or above);
	Instructor evaluation of student clinical performance (late April-early May of 5th semester), Initiative section, question # 2 [Watches for exams, initiates exams without being told (self-starter)]		Students will score "Consistently, but not always/A little above Average" or above		2020-2021 (Of 17 students scored "Consistently, but not always/A little above Average" or above), 2019-2020 (9 consistently, but not always, 8 always, 1 consistently) 2018-2019 (11 at the level of expectations or above);

3.2 Students are able to receive constructive criticism and respond in a professional manner.	Self-evaluation, Professionalism section, #1 (Consistently displays respectful and cooperative attitude toward patients, staff, instructors and fellow students)		Students will score "Satisfactory" or above		2020-2021 (16 of 16 students scored "Satisfactory" or above), 2019-2020 (18 satisfactory or above); 2018-2019 (8 satisfactory)
	Instructor evaluation of student clinical performance (late April-early May of 5th semester), Professionalism section, question # 20 (Makes needed corrections in skill or behavior as a result of constructive criticism).		Students will score "Consistently, but not always/A little above Average" or above		2020-2021 (18 of 18 students scored "Consistently, but not always/A little above Average" or above), 2019-2020 (9 consistently but not always, 8 always, 1 consistently); 2018-2019 (11 at the level of expectations)

Student Learning Outcome 3.1

Analysis: Professionalism readings and assignments were continued as part of clinical. Program faculty increased efforts to hold students accountable to handbook policies, and through use of the trajecsys communication tool reported offences earlier. This allowed for sooner coaching. LMH noted that some students demonstrated lack of initiative at their facility. LMH clinical instructor and Tami worked to create a specific site orientation to address this concern. This orientation was reviewed the on the first day of clinical with the student. The site reported improvement in this area after the orientation.

Action Plan based on Analysis: continue professionalism readings and assignments, continue to stress program rules and expectations, continue LMH site specific initiative orientation, continue to access

Results/Improvement(s) noted based on the action plans that were implemented: improved student initiative

Re-evaluation Date: Summer 2024

Student Learning Outcome 3.2

Analysis: Once again, continued reinforcement of program expectations helps the student to understand they need to receive constructive criticism. Anna noted that Tami sends the student an email letting them know if a preceptor or clinical site has something positive to say. This balances out the criticism and provides encouragement to the student. The program can also explore ways to let techs know when students make positive comments about their instruction.

Action Plan based on Analysis: continue to reinforce program expectations and let students know about positive comments. Look at options to share positive comments with staff technologists, continue to access

Results/Improvement(s) noted based on the action plans that were implemented: faculty were offered professional development in this area. Effectiveness will need to continue to be accessed. Additional professional development may be needed.

Re-evaluation Date: Summer 2024

Goal 4– Students will communicate proficiently.					
Student Learning Outcomes	**Measurement Tools** – A minimum of 2 measuring tools/assessment methods per student learning outcome is required.	**Timeframe** – A formative measure used (while students are in the first year of the program), and a summative measure used (when students are close to program completion and/or graduates) is recommended for best practices.	**Benchmark** Should be a score above passing. Examples are: A percentage score, A score based on a scale, such as a Likert score (include the scale)	**Actual Data Results** Include the number of students evaluated	**Past 3 – 5 years of Data Results –** Identify each year's results separately for comparison purposes.
4.1 Students will use appropriate oral communication with patients	Self-evaluation, Communication section, #3 (Properly instructs and explains procedure to patient during exams, using clear, simple, age appropriate language that is understandable on the patient's level		Students will score "Satisfactory" or above		2020-2021 (16 of 16 students scored "Satisfactory" or above) 2019-2020 (18 satisfactory or above); 2018-2019 (8 satisfactory);
	Instructor evaluation of student clinical performance (late April-early May of 5th semester), communication skills section, question # 7. (Properly instructs and explains procedure to patient during exams, using clear, simple, age appropriate language that is understandable on the patient's level).		Students will score "Consistently, but not always/A little above Average" or above		2020-2021 (17 of 18 students scored "Consistently, but not always/A little above Average" or above 1 of 18 students scored "Most of

					the time/Average" 2019-2020 (9 consistently but not always, 8 always, 1 consistently); 2018-2019 (11 at the level of expectations);
4.2 Students will accurately collect and document accurate patient history per site protocol.	Self-evaluation, Patient Care & Safety section, #9 (Obtains appropriate patient history)		Students will score "Satisfactory" or above		2020-2021 (15 of 16 students scored "Satisfactory" or above 1 of 16 students did not answer the question) 2019-2020 (17 satisfactory, 1 needs improvement); 2018-2019 (8 satisfactory)
	Student performance evaluation, (late April-early May of 2nd semester) communication skills section, question # 8. (Communicates with professional staff, students, and physicians in written or verbal form using correct terminology, pronunciation, and spelling to describe anatomy, procedures, or directional concepts.).		Students will score "Consistently, but not always/A little above Average" or above		2020-2021 (18 of 18 students scored "Consistently, but not always/A little above Average" or above), 2019-2020 (9 consistently but not always, 8 always, 1 consistently); 2018-2019 (11 at the level of expectations)

Student Learning Outcome 4.1

Analysis: Faculty believe that continued simulation help students to meet this benchmark. Students are evaluated at several points throughout the curriculum which allows for continuous feedback. Anna mentioned this is a graded requirement that was added to the trauma lab tests in RAD 211. Tami explained this is also a requirement for the surprise lab tests and must be successfully completed for students to earn clinical competencies.

Action Plan based on Analysis: continue current practice, continue to access

Results/Improvement(s) noted based on the action plans that were implemented: current practices are working

Re-evaluation Date: Summer 2024

Student Learning Outcome 4.2

Analysis: Simulation continued in RAD 110 and RAD 111 and was reinforced in RAD 113. Heather mentioned that she started requiring students to fill in anatomy during quizzes so she could grade for spelling. Anna mentioned that she could do this for RAD 211 also.

Action Plan based on Analysis: grade anatomy quizzes for spelling, continue to access

Results/Improvement(s) noted based on the action plans that were implemented: more data will need to be gathered

Re-evaluation Date: Summer 2024

Fall 2022-Summer 2023

Assessment Plan SLO and Analysis RCC 0612

Program Effectiveness Measures- class of 2023				
OUTCOME	**MEASUREMENT TOOL**	**BENCHMARK**	**TIMEFRAME/ RESPONSIBLE PARTY**	**analysis**
1. Students will achieve a passing score on the ARRT certification exam.	a. Scoring results from the ARRT	a. graduates will obtain a scaled score or 75 or higher on the ARRT certification examination.	a. within 6 months' post-graduation Program Director	16 students sat for the ARRT certification exam, and 15 were successful the first time for a 94% pass rate. Our pass rate increased for a 2nd year in a row. Anna believes the Kettering review seminar being face to face is a valuable tool. She also discussed starting testing earlier with this group. Anna plans to start testing in the first spring semester to access each student retention.
2. Enrolled students will complete the program within 150% of the stated program length. (Program length is 5 semesters).	a. Datatel student records	a. students will complete within 150% of stated program length. Program start date is November 1st of their first semester.	a.150% of the stated program length. (Program length is 5 semesters). Program Director	PCR 16/18=88.88% 19 Students were initially accepted into the program. 1 student dropped prior to the start of the first fall semester due to medical issues, 1 student was dismissed at the end of their first spring semester for behavior violations, 1 student was dismissed at the end of their second fall semester for behavior reasons. Analysis of retention shows that tutoring had a positive impact on completion rates. We will continue to request this on our budget.
3. Students who are seeking employment will be employed within 12 months of graduation	a. Graduate survey	a. graduates will have at least PRN employment or will continue their education.	a. 12 months' post-graduation Program Director	100%. All students had employment prior to graduation. The market is in dire need right now. Employment rates will be surveyed again spring/summer 2024.
4. Graduates will be satisfied with the quality of their radiography education.	a. Graduate survey	a graduates will be satisfied with the quality of their education.	a. 6 months' post-graduation Program Director	Will be assessed spring/summer 2024
5. Employers will be satisfied with the performance of the program's graduates.	a. employer survey	a. employers will be satisfied with the performance of the program's graduates.	a. 12 months after graduation Program Director	Will be assessed spring/summer 2024