

WCC RADIOGRAPHY PROGRAM ANNUAL ASSESSMENT DATA: Graduate Class of 2023

Mission Statement: The mission of the Radiography Program is to provide students with a high-quality, well-rounded educational experience which results in graduates who possess the knowledge, skills, and abilities to enter the field of diagnostic imaging as entry-level radiographers. Graduates of the Washtenaw Community College Radiography Program will demonstrate the necessary skills to integrate the theoretical knowledge and essential clinical skills to perform radiologic procedures and provide exemplary patient care in a variety of healthcare settings with diverse patient populations.

Program Goals

Goal 1: Clinical Competency: Students will demonstrate proficiency in technical and clinical skills.

Goal 2: Critical Thinking: Students will demonstrate critical thinking and problem-solving skills.

Goal 3: Communication Skills: Students will demonstrate the ability to effectively communicate orally and in writing.

Goal 4: Professional and Ethical Principles: Students will demonstrate the ability to analyze and address ethical and medical issues in patient care while exhibiting professionalism in the clinical setting.

Goal 1: Clinical Competency: Students will demonstrate proficiency in technical and clinical skills.						
Student Outcomes	Assessment Tool	Benchmark	Timeline	Faculty Responsible	Results per Academic Year/Class	Analysis/Recommendations
1.1 Students will perform diagnostic radiographic procedures.	RAD 120 - Final Clinical Performance Evaluation: Technical Aptitude – 3rd statement “Demonstrates proper manipulation of radiographic / fluoroscopic / portable equipment including tube, SID, table movement / locks / tube / bucky alignment”	*Average score ≥ 3 (1 – 4-point scale) ^Average score ≥ 4 (1 – 5-point scale)	First Year, 3rd semester (Winter)	Clinical Coordinator	<p>*2018 - 2019: Average score 3.6 12 students (55%) received a score of 4 6 students (27%) received a score of 3 4 students (18%) received a score of 3.5</p> <p>*Class of 2020: Average score 3.6 12 students (55%) received a score of 4 6 students (27%) received a score of 3 4 students (18%) received a score of 3.5</p> <p>Class of 2021: No data due to COVID-19 restrictions</p> <p>^Class of 2022: Average score 4.18 9 students (41%) received a score of 5 8 students (36%) received a score of 4 5 students (23%) received a score of 3</p> <p>^Class of 2023: Average score 4.08 9 students (36%) received a score of 5 10 students (40%) received a score of 4 5 students (20%) received a score of 3 1 student (4%) received a score of 2</p>	<p>The assessment data for the diagnostic radiographic procedures illustrates a notable trend in student performance across several academic years. For the academic year 2018-2019 (Class of 2020) the class maintained a consistent average score of 3.6. For this year, 55% of the students achieved a high score of 4, while 27% scored a 3, with some slight variations in the 3.5 range among students.</p> <p>The onset of the COVID-19 pandemic in 2021 resulted in a lack of data for that class. However, the introduction of a 5-point evaluation scale following this period led to some changes in the performance outcomes for the Classes of 2022 and 2023. The Class of 2022 achieved a higher average score of 4.18, with 41% of students reaching the top score of 5 and 36% scoring a 4. This demonstrated a robust level of technical proficiency among students.</p> <p>In contrast, the Class of 2023 reflected a slight decline in overall performance with an average score of 4.08. While 36% of students still obtained a score of 5 and the percentage of students receiving a score of 4 rose to 40%, this class also experienced a notable increase in lower scores. Specifically, 20% of students scored a 3, and 4% scored a 2, which were performance levels not observed in the previous year.</p> <p>In summary, although there was a minor reduction in average scores from 2022 to 2023, the latter class demonstrated an increase in the proportion of students scoring in the upper middle range, indicating a potential shift in performance dynamics. This nuanced performance data highlights both improvements and challenges in the students' technical aptitude in the application of radiographic equipment. This will continue to be monitored by Ms. Hammond.</p> <p>Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>

		RAD 150 - Radiographic Positioning Simulation Exercises (Spinal Column)	Students will achieve a score of 90% or higher	First Year, 4th semester (Sp/Su)	Clinical Coordinator	2018 -2019: Average score 97% Class of 2020: Average score 97% Class of 2021: No data – campus closed Class of 2022: Average score 98%	<p>The assessment of student performance in diagnostic radiographic procedures, specifically through the RAD 150 Radiographic Positioning Simulation Exercises focusing on the spinal column, has yielded impressive results over several academic years. In the 2018-2019 (Class of 2020), students achieved an exceptional average score of 97%, demonstrating a strong understanding and execution of the required skills. Unfortunately, there is no data available for the Class of 2021 due to campus closures. However, the following year, the Class of 2022 recorded an even higher average score of 98%, indicating an upward trend in student proficiency and mastery of radiographic positioning techniques. Overall, the data reflects a consistently high level of performance among students in this critical area of their training.</p> <p>After reviewing previous assessment data, it was determined by the faculty that this assessment tool would be changed. By broadening the assessment to include the upper extremities and lower extremities, the new assessment method aims to provide a more holistic evaluation of students' proficiency in radiographic positioning. This change acknowledges the critical importance of mastering a diverse range of positioning techniques, which is essential for effective patient care and accurate imaging results.</p>
		RAD 150 - Radiographic Positioning Simulation Exercises (Upper Extremities, Lower Extremities, and Spinal Column)	Students will achieve a score of 90% or higher on all three radiographic positioning simulations of the upper extremities, lower extremities, and spinal column	First Year, 4th semester (Sp/Su)	Clinical Coordinator	Class of 2023: Average score 97.7%	<p>In evaluating SLO 1.1 for the performance of diagnostic radiographic procedures, the introduction of evaluating all three of the RAD 150 Radiographic Positioning Simulation Exercises represents a significant advancement in assessment methods. For the Class of 2023, these new tools have proven effective, with students achieving an impressive average score of 97.7%. This strong performance reflects a solid mastery of radiographic positioning for upper extremities, lower extremities, and the spinal column. The high average score not only indicates the students' competence in these critical areas but also underscores the efficacy of the simulation exercises as a valuable educational resource in preparing our students. Overall, the data suggests that the implementation of this new assessment method is a successful step toward enhancing the quality of instruction and assessment within the program. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>
		RAD 240 - Final Clinical Performance Evaluation: Competency Maintenance – 2nd statement “When the student is involved in procedures previously mastered, the student is able to perform the exam with minimal assistance”	*Average score ≥ 3 (1 – 4-point scale) +Average score ≥ 3.5 (1 – 5-point scale)	Second Year, 7th semester (Sp/Su)	Clinical Coordinator	<p>*2018 - 2019: Average score 3.9 20 students (87%) received a score of 4 3 students (13%) received a score of 3</p> <p>Class of 2020: No data – Students unable to attend clinical</p> <p>+Class of 2021: Average score 5 21 students (100%) received a score of 5</p> <p>+Class of 2022: Average score 4.82 17 students (85%) received a score of 5 2 students (10%) received a score of 4 1 student (5%) received a score of 3</p> <p>+Class of 2023: Average score 4.96 22 students (96%) received a score of 5 1 student (4%) received a score of 4</p>	<p>The assessment of student performance in diagnostic radiographic procedures has shown a trend of improvement and high competency over the years. For the academic year 2018-2019, the average score was 3.9, with 87% of students (20 out of 23) demonstrating strong skills by receiving a score of 4, while 13% achieved a score of 3.</p> <p>Due to unforeseen circumstances, the Class of 2020 was unable to provide data for assessment. However, starting with the Class of 2021, which adopted a five-point scoring scale, the results reflected remarkable growth in student competency. The Class of 2021 achieved an impressive average score of 5, with all 21 students scoring at the highest level.</p> <p>Continuing this positive trend, the Class of 2022 demonstrated only slightly lower performance, with an average score of 4.82. Of this class, 85% of students (17 out of 20) attained a perfect score of 5, illustrating their proficiency, while a small percentage scored 4 or 3.</p> <p>Most recently, the Class of 2023 maintained high achievement with an average score of 4.96. In this cohort, 96% of students (22 out of 23) reached the top score of 5, and one student scored 4.</p> <p>Overall, the results indicate that students have consistently performed well in diagnostic radiographic procedures, showing a trend of increasing competence and mastery as they progress through their training.</p> <p>Based on the assessment tool's performance, it has been determined that no modifications are necessary regarding the assessment tool. One modification that will be made is regarding the benchmark. The benchmark will be changed to Average score ≥ 4 (1 – 5-point scale).</p>

1.2	Students will demonstrate the ability to perform basic patient care assessment skills.	RAD 101: Patient Transfer Competency Form	<p>^Average score \geq 32 (total points 39)</p> <p>*Average score \geq 27(total points 33)</p> <p>#Average score \geq 40(total points 48)</p>	First Year, 1st semester (Sp/Su)	RAD 101 Instructor	<p>^2018 - 2019: Average Score 37</p> <p>^Class of 2020: Average Score 37</p> <p>^Class of 2021: Average Score 38</p> <p>*Class of 2022: Average Score 31.6</p> <p>#Class of 2023: Average Score 45</p> <p>20 students received a score of 48</p> <p>1 student received a score of 47</p> <p>3 students received a score of 46</p> <p>3 students received a score of 45</p> <p>4 students received a score of 44</p> <p>2 students received a score of 43</p> <p>1 student received a score of 38</p> <p>1 student received a score of 0</p>	<p>The assessment of student's basic patient care assessment skills, particularly in patient transfer, has shown variations across different graduating classes. The associated with the academic year of 2018-2019 (Class of 2020) recorded an average score of 37 points on the RAD 101: Patient Transfer Competency Form, based on a total of 39 points. The Class of 2021 achieved an average score of 37 points.</p> <p>The Class of 2022 saw a slight change, with their average score being 31.6 points out of a revised total of 33 points; this reflects a minor adjustment in the scoring rather than a significant decline in competency.</p> <p>To enhance the assessment process further, Mr. Nelson updated the rubric for the Class of 2023, increasing the total points for the assessment to 48. He was not satisfied with the change he made for the Class of 2022 and felt a more comprehensive rubric was appropriate. This revision had a substantial positive impact, as demonstrated by the Class of 2023's average score of 45 points. The cohort exhibited impressive individual performances, with 20 students achieving the maximum score of 48. Other students scored 47, 46, and 45, underscoring a strong overall improvement in the students' ability to perform patient transfer skills in the lab setting. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>
		RAD 222 Patient Assessment Skills Check-Out Form: Venipuncture	Average score \geq 17 (total points 20)	Second Year, 5th semester (Fall)	RAD 222 Instructor	<p>2018 - 2019 Average score 20</p> <p>Class of 2020 Average score 20</p> <p>Class of 2021 Average score 20</p> <p>Class of 2022 Average score 20</p> <p>21 students (100%) received a score of 20</p>	<p>The assessment data for Student Learning Outcome 1.2 demonstrates an outstanding level of proficiency among students in performing basic patient care assessment skills, specifically venipuncture. Across four academic years—2018 through 2022—the average scores remained consistently high at 20 for each cohort, indicating that students have not only met but excelled beyond the established benchmark for this assessment tool.</p> <p>After reviewing the previous assessment data, the decision to shift the RAD 222 Patient Assessment Skills Check-Out Form from venipuncture to vital signs assessment reflects our commitment to continually improving student learning and patient care outcomes. Vital signs are pivotal in evaluating a patient's health status, providing essential data that informs clinical decision-making and interventions.</p> <p>By implementing this change, we aim to enhance our students' proficiency in vital signs assessment, which is a fundamental component of patient care. The new benchmark of achieving an average score of 83 out of 90 underscores our dedication to maintaining high standards of competency and rigor in our assessment process.</p>
		RAD 222 Patient Assessment Skills Check-Out Form: Vital Signs	Average score \geq 83 (total points 90)	Second Year, 5th semester (Fall)	RAD 222 Instructor	<p>Class of 2023 Average score 90</p> <p>22 students (100%) received a score of 90</p>	<p>The new assessment method was conducted using the RAD 222 Patient Assessment Skills Check-Out Form centered on vital signs. The results from the Class of 2023 are impressive, with an average score of 90 achieved by all 22 participating students, representing a 100% success rate. This outstanding performance indicates that the students have effectively mastered the essential skills required for accurate vital signs assessment, highlighting the effectiveness of the instructional methods employed by Mr. Skufis and the student's commitment to their education.</p> <p>Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>

Goal 2: Critical Thinking: Students will demonstrate critical thinking and problem-solving skills.						
Student Outcomes	Assessment Tool	Benchmark	Timeline	Faculty Responsible	Results per Academic Year/Class	Analysis/Recommendations
2.1 Students will calculate the correct exposure factors.	RAD 124 Lab Assignment Effect of Distance on Density/Density Maintenance Formula	Average score \geq 20 (26 points)	First Year, 2nd semester (Fall)	RAD 124 Instructor	2018 - 2019: Average score 22.25 Class of 2020: Average score 22.25 Class of 2021: Average score 23.9 Class of 2022: Average score 24 Class of 2023: Average score 24.1 1 student received a score of 28 - extra credit for superior answers 2 students received a score of 27 – extra credit for superior answers 13 students received a score of 26 2 students received a score of 25 1 student received a score of 24 2 students received a score 22 3 students received a score of 21 1 student received a score of 20 1 student received a score of 8	<p>The assessment data for SLO 2.1, which focuses on the students' ability to calculate the correct exposure factors, reveals a steady progression in scores over several academic years in the RAD 124 Lab Assignment concerning the effect of distance on density and the density/exposure maintenance formula. For the cohort of 2018-2019, which includes the Class of 2020, the average score was notably low at 22.25, indicating a need for improvement in understanding the concepts.</p> <p>The following years saw a gradual enhancement in performance. The Class of 2021 achieved a higher average score of 23.9, reflecting a growing comprehension of the material. This positive trend continued, as the Class of 2022 recorded an average score of 24, and the Class of 2023 showed further improvement with an average of 24.1.</p> <p>Additionally, several students demonstrated exceptional knowledge, earning extra credit for superior answers. One student received a score of 28, while two students scored 27. A total of thirteen students earned a score of 26, while two students received a score of 25. Other scores included one student with a score of 24, two students scoring 22, three scoring 21, one student scoring 20, and notably, one student received a very low score of 8.</p> <p>Overall, the assessment results signify a trend toward improved understanding and application of exposure factors over the years, highlighting the effectiveness of instructional methods and the students' increasing grasp of the fundamental principles of radiography. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>
	RAD 217 Radiographic Technique Manual Project - 1. Upper and lower extremities, 2. Skull procedures, and 3. Spinal Column, Chest, Abdomen, Ribs, and Sternum	Average score of 90% or better (100 points) - Combined average score of 3 assignments	Second Year, 5th semester (Fall)	Clinical Coordinator	2018 - 2019: Average score 99% Class of 2020: Average score 97% Class of 2021: Average score 96% Class of 2022: Average score 97.6% Class of 2023: Average score 98.5%	<p>The assessment data gathered from the RAD 217 Radiographic Technique Manual Project over several years highlights a consistent level of proficiency among students in calculating the correct exposure factors. From the academic year 2018 to 2019, students achieved an impressive average score of 99%, showcasing their strong grasp of radiographic techniques.</p> <p>The following year, the Class of 2020 maintained a high standard with an average score of 97%. The performance continued to be commendable with the Class of 2021 recording an average score of 96%. In 2022, the students showed a slight improvement, as the Class of 2022 achieved an average score of 97.6%. Finally, the Class of 2023 exhibited even greater proficiency, culminating in an average score of 98.5%.</p> <p>Overall, this data reflects a sustained competency and an upward trajectory in student performance in calculating exposure factors within radiographic techniques, demonstrating the effectiveness of the educational strategies employed in the program. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>

2.2	Students will solve problems in the clinical setting.	RAD 225 Final Evaluation (Judgment/Accountability 8th Statement “The student demonstrates the ability to think critically and solves problems or challenges as they arise”	#Average score ≥ 3 (1 - 4-point scale) ^Average score ≥ 3.5 (1 - 5-point scale)	Second Year, 6th semester (Winter)	Clinical Coordinator	<p>#2018 - 2019: Average score 3.8 18 students (78%) received a score of 4 5 students (12%) received a score of 3</p> <p>#Class 2020: Average score 3.6 8 students (36%) received a score of 4 14 students (64%) received a score of 3</p> <p>^Class of 2021: Average score 4.73 16 students (76%) received a score of 5 4 students (19%) received a score of 4 1 student (5%) received a score of 3</p> <p>^Class of 2022: Average score 4.55 12 students (60%) received a score of 5 7 students (35%) received a score of 4 1 student (5%) received a score of 3</p> <p>Class of 2023: Average score 4.6 13 students received a score of 5 9 students received a score of 4</p>	<p>The assessment data for SLO 2.2, which measures students' ability to solve problems in clinical settings, showcases a notable progression in critical thinking and problem-solving skills over the academic years. This evaluation utilized the RAD 225 Final Evaluation, focusing on students' judgment and accountability in addressing challenges.</p> <p>In the 2018-2019 academic year, students achieved an average score of 3.8, with 78% earning the highest score of 4, highlighting a strong capability to navigate clinical scenarios. However, the Class of 2020 saw a decline in performance, with an average score of 3.6; here, only 36% of students received a score of 4, while the majority, 64%, scored 3.</p> <p>Following this year, the assessment criteria shifted to a 5-point scale, which allowed for a more nuanced evaluation of students' skills. In the Class of 2021, students excelled again, achieving an impressive average score of 4.73. This cohort demonstrated exceptional problem-solving capabilities, with 76% scoring 5 and 19% scoring 4. The Class of 2022 maintained a high standard with an average score of 4.55, where 60% of students obtained a score of 5 and 35% received a score of 4.</p> <p>The Class of 2023 showed consistent performance with an average score of 4.6, comprised of 13 students achieving the highest score of 5 and 9 students receiving a score of 4.</p> <p>Overall, the evaluation results exhibit a clear upward trend in students' critical thinking and problem-solving skills, particularly after the implementation of the 5-point scale, which better captures the breadth of students' abilities to address challenges in clinical settings. Faculty did discuss the possibility of replacing this assessment tool, but that will be considered during the next assessment cycle.</p>
		Radiography Student Professional Skills Evaluation Question – 6 “The student demonstrates the ability to think critically and solve problems or challenges with which he/she is confronted.”	Average score ≥ 3 (1 – 4-point scale)	Annually in June	Clinical Coordinator	<p>2018 - 2019: Average score 3.8 18 students (78%) received a score of 4 5 students (12%) received a score of 3</p> <p>Class 2020: Average score 3.8 18 students (82%) received a score of 4 4 students (18%) received a score of 3</p> <p>Class of 2021: Average score 3.8 12 students (80%) received a score of 4 3 students (20%) received a score of 3</p> <p>Class of 2022: Average score 3.77 15 students (75%) received a score of 4 1 student (5%) received a score of 3.67 4 students (20%) received a score of 3</p> <p>Class of 2023: Average score 3.83 19 students received a score of 4 4 students received a score of 3</p>	<p>The assessment data for SLO 2.2, which evaluates students' ability to solve problems in a clinical setting, reveals a consistent demonstration of critical thinking skills among students over multiple academic years. The Radiography Student Professional Skills Evaluation has provided insights into how effectively students meet challenges in their educational environment.</p> <p>In the 2018-2019 academic year, students achieved an average score of 3.8, with 78% of the cohort earning a score of 4, indicative of strong problem-solving abilities. Similarly, the Class of 2020 also maintained an average score of 3.8, with an impressive 82% of students scoring a 4 and only 18% scoring 3. The trend continued with the Class of 2021, where the average score remained at 3.8, with 80% receiving a score of 4.</p> <p>While the Class of 2022 saw a slight dip in the average score to 3.77, 75% of students still achieved the highest score of 4. A unique aspect of this cohort was the presence of a student who scored 3.67, showcasing a nuanced achievement within the group. The Class of 2023 rebounded slightly, achieving an average score of 3.83, with 19 students earning a score of 4 and 4 students scoring 3.</p> <p>Overall, the data reflects a robust ability among students to think critically and address challenges in clinical settings, demonstrating both consistency and improvement across successive classes. This trend underscores the effectiveness of the program in fostering critical thinking and problem-solving skills essential for professional practice in radiography. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>

Goal 3: Communication Skills: Students will demonstrate the ability to effectively communicate orally and in writing.						
Student Outcomes	Assessment Tool	Benchmark	Timeline	Faculty Responsible	Results per Academic Year/Class	Analysis/Recommendations
3.1 Students will use effective oral communication skills in the clinical setting.	RAD 120 Final Evaluation: Patient Communication – 1st statement “The student demonstrates the ability to communicate with the patient in a professional manner”	*Average score ≥ 3 (1 – 4-point scale) +Average score ≥ 4 (1 – 5-point scale)	First Year, 3rd semester (Winter)	Clinical Coordinator	<p>*2018 - 2019: Average score 3.7 17 students (71%) received a score of 4 7 students (29%) received a score of 3</p> <p>*Class of 2020: Average score 3.7 17 students (71%) received a score of 4 7 students (29%) received a score of 3</p> <p>Class of 2021: No data due to COVID-19 restrictions</p> <p>+Class of 2022: Average score 4.27 12 students (55%) received a score of 5 6 students (27%) received a score of 4 3 students (14%) received a score of 3 0 students (0%) received a score of 2 1 student (4%) received a score of 1</p> <p>Class of 2023: Average Score 4.36 13 students (52%) received a score of 5 8 students (32%) received a score of 4 4 students (16%) received a score of 3</p>	<p>The evaluation of students' oral communication skills in the clinical setting, specifically their ability to communicate with patients in a professional manner, has shown notable progression from 2018 through 2023, despite a data gap due to the COVID-19 pandemic.</p> <p>In the academic years 2018-2019 (Class of 2020), the average score remained stable at 3.7. In this cohort, 71% of the 24 students achieved the highest score of 4, while the remaining 29% scored a 3, indicating a consistent level of proficiency in patient communication during this period.</p> <p>Subsequently, the Class of 2021 did not have evaluative data due to COVID-19 restrictions, limiting available insights into student performance during that year. However, with the introduction of a new 5-point scoring scale in 2022, the Class of 2022 demonstrated significant improvement. The average score for this cohort rose to 4.27, with 55% of students earning the highest score of 5 and a combined total of 81% scoring either 5 or 4, reflecting a substantial enhancement in professional communication skills.</p> <p>The momentum continued with the Class of 2023, which achieved an average score of 4.36, showcasing the highest level of student success to date. In this cohort, 52% received a score of 5, while 32% scored 4 and 16% scored 3, underscoring that students are not only maintaining their skills but are also excelling in patient communication.</p> <p>Overall, the evaluation data highlight a positive trajectory in students' professional communication abilities, culminating in the Classes of 2022 and 2023 where students have notably exceeded previous performance benchmarks.</p> <p>Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>
	Radiography Student Professional Skills Evaluation - Question 1 “The student communicates with patients in a manner that you would expect/require of an entry-level radiographer.”	Average score ≥ 3 (1 – 4-point scale)	Annually in June	Clinical Coordinator	<p>2018 - 2019 Average score 3.8 18 students (78%) received a score of 4 5 students (22%) received a score of 3</p> <p>Class of 2020 Average score 3.8 18 students received a score of 4 4 students received a score of 3</p> <p>Class of 2021 Average score 3.94 20 students received a score of 4 1 student received a score of 3</p> <p>Class of 2022 Average score 3.91 18 students received a score of 4 1 student received a score of 3.67 1 student received a score of 3</p> <p>Class of 2023 Average score 4 24 students (100%) received a score of 4</p>	<p>Over the years from 2018 to 2023, the performance of radiography students in their oral communication skills within the clinical setting has shown an upward trend in proficiency. The assessment tool used, the Radiography Student Professional Skills Evaluation, measures how well students communicate with patients in a manner expected of entry-level radiographers.</p> <p>In the academic year 2018-2019 (Class of 2020), the average score for the cohort was 3.8, with 78% of the 23 students receiving the highest score of 4, while the remaining 22% scored a 3.</p> <p>The Class of 2021 displayed an improvement, attaining a higher average score of 3.94. Here, 20 out of 21 students achieved the top score of 4, with only one student scoring a 3. This upward trend continued into the Class of 2022, which secured an average score of 3.91, with the majority (18 students) earning a 4. Notably, two students scored slightly lower, with one receiving 3.67 and another scoring 3.</p> <p>The most significant achievement was recorded in the Class of 2023, which earned an impressive average score of 4, demonstrating a complete proficiency in oral communication as every one of the 24 students received the highest possible score.</p> <p>In summary, over the observed years, radiography students have consistently demonstrated effective oral communication skills in clinical settings, culminating in an impressive performance in 2023 that highlights their readiness to enter the profession. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>

3.2	Students will practice writing skills.	RAD 120 - Contrast Case Study Paper	Average score ≥ 80 points (100- point rubric)	First Year, 3rd semester (Winter)	Clinical Coordinator	<p>2018 - 2019: Average score 97 Class of 2020: Average score 97 Class of 2021: Average score 97 Class of 2022: Average score 97 Class of 2023: Average Score 97 7 students received a score of 100 5 students received a score of 99 3 students received a score of 98 3 students received a score of 97 2 students received a score of 96 1 student received a score of 95 2 students received a score of 94 1 student received a score of 90 1 student received a score of 84</p>	<p>The assessment of students' writing skills, as measured by the RAD 120 Contrast Case Study Paper, has demonstrated remarkable consistency and excellence from the academic year 2018 to 2023. Across this period, the average score for students has remained exceptionally high at 97, indicating a strong mastery of writing skills necessary for their field.</p> <p>In the combined cohort of 2018-2019 and the Class of 2020, the average score was recorded at 97, reflecting a solid foundation in writing. This trend continued into the subsequent years, with the Class of 2021 maintaining the same average score of 97. The Classes of 2022 and 2023 followed suit, again achieving an average of 97, showcasing a sustained level of high performance in written assignments.</p> <p>The detailed performance data for the Class of 2023 revealed a particularly impressive distribution of scores, with 7 students achieving a perfect score of 100. Additionally, 5 students scored 99, 3 students scored 98, and another 3 scored 97. While there were also students who received scores in the lower range, including 2 students scoring 96 and one each scoring 95, 94, 90, and 84, the overall performance underscores the high academic standards maintained by the cohort.</p> <p>In summary, the assessment data highlights a trend of excellence in writing skills among the radiography students, with consistently high average scores across multiple years and a notable number of students achieving top scores in their case study papers. This performance reflects the effectiveness of the program in developing strong writing competencies essential for their professional practice.</p> <p>Faculty will discuss a possible replacement for this assessment tool during the next review cycle.</p>
		RAD 225 – Advanced-Level Training Research Paper	Average score ≥ 80 points (100- point rubric)	Second Year, 6th semester (Winter)	Clinical Coordinator	<p>2018 - 2019: Average score 94 Class of 2020: Average score 96 Class of 2021: Average score 97 Class of 2022: Average score 98 Class of 2023: Average score 99 21 students received a score of 100 1 student received a score of 99 1 student received a score of 90</p>	<p>The assessment of students' writing skills, evaluated through the RAD 225 Advanced-Level Training Research Paper, showcases a remarkable trajectory of improvement in academic performance from the 2018 academic year through 2023.</p> <p>In the academic year 2018-2019, students achieved an average score of 94, establishing a solid starting point for their writing proficiency. The following year, the Class of 2020 demonstrated an upward trend with an average score of 96, reflecting enhancements in their research and writing capabilities. This positive momentum continued with the Class of 2021, who achieved an even higher average score of 97.</p> <p>The Class of 2022 further built on this success, raising the average to 98, and the Class of 2023 marked a significant milestone, reaching an impressive average score of 99. This consistent improvement over the successive cohorts illustrates an effective development of writing skills throughout the program.</p> <p>The data for the Class of 2023 is particularly noteworthy, as 21 students achieved a perfect score of 100 on their research papers, demonstrating exceptional mastery of the subject matter and the writing process. Additionally, one student scored 99 and another scored 90, indicating a broad range of strong performances.</p> <p>In summary, the assessment results highlight a significant enhancement in the writing skills of radiography students across five academic years, culminating in outstanding achievements in the Class of 2023. The continuous rise in average scores not only reflects the students' dedication but also the effectiveness of the curriculum in cultivating advanced writing abilities essential for their future professional endeavors. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>

Goal 4: Students will exhibit professional values, attitudes, behaviors, and ethics.							
Student Outcomes	Assessment Tool	Benchmark	Timeline	Faculty Responsible	Results per Academic Year/Class	Analysis/Recommendations	
4.1	Students will recognize the ethical and medical issues in patient care.	RAD 110 writing assignment, Patient/Co-Worker Communication, and Cultural Diversity	Average score of 80 points or better (100 points rubric)	First Year, 1st semester (Fall)	Clinical Coordinator	<p>2018 - 2019: Average score 94 Class of 2020: Average score 94 Class of 2021: Average score 85 Class of 2022: Average score 93 Class of 2023: Average score 92</p> <p>7 students received a score of 100 5 students received a score of 99 4 students received a score of 98 2 students received a score of 97 2 students received a score of 95 1 student received a score of 94 1 student received a score of 93 1 student received a score of 89 1 student received a score of 88 1 student received a score of 87 1 student received a score of 84 1 student received a score of 83 1 student received a score of 0</p>	<p>The assessment data for SLO 4.1, which focuses on students' ability to recognize ethical and medical issues in patient care, reflects notable performance trends among different cohorts in the RAD 110 writing assignment related to Patient/Co-Worker Communication and Cultural Diversity.</p> <p>During the 2018-2019 academic year, which includes the Class of 2020, students achieved an impressive average score of 94. This high level of understanding was maintained by the Class of 2020, which also recorded an average score of 94. In contrast, the Class of 2021 experienced a decrease in performance, with an average score of 85.</p> <p>However, the following years saw a resurgence in scores. The Class of 2022 rebounded significantly with an average score of 93, suggesting improvements in students' grasp of ethical and medical issues, followed closely by the Class of 2023, which posted an average score of 92.</p> <p>Within these data, several standout performances are notable. A total of seven students achieved perfect scores of 100, showcasing exceptional understanding of the subject. Additionally, five students received scores of 99, four students scored 98, and two each scored 97 and 95. Other scores highlighted a range of abilities, with students scoring as low as 0, indicating potential areas for support and improvement.</p> <p>Overall, the assessment outcomes illustrate a strong foundation in ethical and medical issues related to patient care among students, with fluctuations that signify opportunities for growth, particularly evident in the Class of 2021. The faculty's emphasis on effective communication and cultural competence appears to have yielded beneficial results, reinforcing the importance of these competencies in the field of radiography.</p>
	RAD 103 – Unit 4 Homework Essay Questions on Ethical and Medical Issues in Patient Care	Average score > 32 points (40 points)	First Year, 1st semester (Sp/Su)	RAD 103 Instructor	<p>2018 - 2019: Average score 39 Class of 2020: Average score 39 Class of 2021: Average score 40 Class of 2022: Average score 40</p>	<p>The assessment data from RAD 103 highlights a dedicated effort by students to engage with critical ethical and medical issues in patient care over the years. The average scores across multiple academic cohorts have remained relatively stable, with students from the 2018-2019 academic year and the Class of 2020 both achieving an average of 39. This consistent performance suggests a solid foundation of understanding, which was maintained with a slight improvement noted for the Class of 2021 and 2022, where the average reached 40.</p> <p>This stability indicates that the curriculum is effectively introducing students to essential concepts, laying the groundwork for their future professional practice. In recognition of the importance of continuously enhancing educational assessment methods, the faculty decided to implement a new evaluative tool for the Class of 2023. The introduction of the ARRT Code of Ethics assignment from the RAD 222 course reflects a proactive approach to deepen students' understanding of professional standards and ethical considerations in patient care.</p> <p>With a benchmark set at 32 out of 40 points, this new assessment method aims not only to identify student competency but also to foster critical thinking and moral reasoning. This evolution in assessment demonstrates a commitment to preparing students for the complexities of healthcare, ensuring they are well-equipped to navigate ethical challenges in their future careers.</p>	

		RAD 222 ARRT Code of Ethics Assignment	Average score > 32 points (40 points)	Second Year, 5th semester (Fall)	RAD 222 Instructor	<p>Class of 2023: Average score 38.91 19 students received a score of 40 1 student received a score of 39 1 student received a score of 36 1 student received a score of 35 1 student received a score of 25</p>	<p>The assessment data for the Class of 2023, gathered through the ARRT Code of Ethics assignment in the RAD 222 course, demonstrates a commendable level of understanding among students regarding ethical and medical issues in patient care. With an impressive average score of 38.91 out of 40, the results highlight the students' strong grasp of professional standards and ethical considerations critical to their future roles in healthcare.</p> <p>Notably, 19 out of 23 students achieved a perfect score of 40, indicating a high level of proficiency in navigating the complexities of ethical dilemmas faced in patient care. Additionally, a few students scored 39, 36, and 35, further showcasing their understanding of the subject matter. However, one student scored 25, suggesting that there is still an opportunity for targeted support and enhancement in understanding for all students.</p> <p>Overall, the data reflects positively on the effectiveness of the new assessment method implemented for this cohort. The high average score and the notable number of perfect scores indicate that the Class of 2023 is well-prepared to recognize and address ethical issues in their professional practice, laying a solid foundation for their future contributions to the healthcare field. Based on the assessment tool's performance, it has been determined that no modifications are necessary at this time.</p>
4.2	Students will exhibit professional behaviors in the clinical setting.	RAD 150 Final Performance Evaluation – (Interpersonal Relationships: The ability to communicate and interact in a professional manner with clinical staff and peers.) “Student communicates well with staff members, peers, and physicians in an effort to promote a productive and respectful environment”	*Average score ≥ 3 (1 – 4-point scale) +Average score ≥ 4 (1 – 5-point scale)	First Year, 4th semester (Spring/Summer)	Clinical Coordinator	<p>*2018 - 2019: Average score 3.9 22 students (88%) received a score of 4 3 students (12%) received a score of 3</p> <p>*Class of 2020: Average score 3.9 Average score 3.8 22 students (88%) received a score of 4 3 students (12%) received a score of 3</p> <p>*Class of 2021: Average score 3.9 20 students (91%) received a score of 4 2 students (9%) received a score of 3</p> <p>+Class of 2022: Average score 4.86 17 students (85%) received a score of 5 3 students (15%) received a score of 4</p> <p>Class of 2023: Average score 4.42 14 students received a score of 5 6 students received a score of 4 4 students received a score of 3</p>	<p>The assessment data for SLO 4.2, which evaluates students' exhibition of professional behaviors in the clinical setting, highlights a strong emphasis on communication and interpersonal relationships within the RAD 150 Final Performance Evaluation. This evaluation focused on the students' ability to interact professionally with clinical staff, peers, and physicians to foster a respectful and productive environment.</p> <p>In the combined academic year of 2018-2019, which corresponds to the Class of 2020, students achieved a solid average score of 3.9, with 88% earning the highest score of 4. This performance level was consistently maintained, as the Class of 2020 also recorded an average score of 3.9. The Class of 2021 demonstrated similar effectiveness in communication, achieving an average score of 3.9, with an increase in accomplishment where 91% of students scored 4.</p> <p>A significant improvement was observed in the Class of 2022, which marked a notable leap in performance, achieving an outstanding average score of 4.86. In this cohort, 85% of students received a score of 5, reflecting excellent professional behaviors and communication skills.</p> <p>In the subsequent Class of 2023, the average score moderated to 4.42, indicating strong performance, with 14 students earning a score of 5, 6 students scoring 4, and 4 students receiving a score of 3.</p> <p>Overall, the data illustrates a consistent trend of professionalism and effective communication among students across the years, with a particularly remarkable improvement reflected in the Class of 2022. This highlights the program's success in cultivating professional behavior in clinical settings, essential for the future success of aspiring radiographers.</p>

		Radiography Student Professional Skills Evaluation: 2nd statement “ The student communicates with fellow students, staff, managers, and physicians in a manner you would expect /require of an entry-level radiographer. ”	Average score ≥ 3 (1 – 4-point scale)	Annually in June	Clinical Coordinator	2018 - 2019: Average score 3.7 17 students (74%) received a score of 4 6 students (26%) received a score of 3 Class of 2020: No Data available due to Covid Class of 2021: Average score 3.88 13 students (74%) received a score of 4 2 students (26%) received a score of 3 Class of 2022: Average score 3.95 19 students received a score of 4 1 student received a score of 3.67	Over several academic years, the assessment of professional behaviors in the clinical setting, measured through the Radiography Student Professional Skills Evaluation’s second statement, reveals a predominately positive trend among our 2nd-year radiography students. In the assessment conducted during the 2018-2019 academic year, the average score was 3.7, with 74% of students achieving the highest score of 4, while 26% scored 3. The following year, 2021, despite a gap in data due to the Covid-19 pandemic, the average score improved to 3.88, maintaining the trend with 74% of students earning a score of 4 and 26% scoring 3. The 2022 assessment showed further improvement, with an average score of 3.95; 95% of students scored 4, and one student achieved a score of 3.67. Based on these evaluations, it appears that students have consistently demonstrated effective professional behaviors expected of entry-level radiographers, reflecting positively on their overall preparedness. To enhance the evaluation of students’ professional behaviors and incorporate a broader range of competencies, faculty decided to adopt a new assessment tool focusing on the 12th statement of the Professional Skills Evaluation: “ The student uses professional judgment and shows respect for organizational policies and norms. ” This shift allows for a more comprehensive assessment of the student’s ability to navigate the complexities of the clinical environment. It emphasizes the importance of not only professional interactions but also the ability to apply professional judgment and adhere to organizational standards, which are crucial for effective practice in radiography. By utilizing this new tool, faculty aim to better prepare students for the real-world challenges they will face, fostering an environment that prioritizes professionalism and ethical considerations in their future careers.
		Radiography Student Professional Skills Evaluation: 12th statement “ The student uses professional judgment and shows respect for organizational policies and norms. ”	Average score ≥ 3 (1 – 4-point scale)	Annually in June	Clinical Coordinator	Class of 2023: Average score 3.96 22 students received a score of 4 1 student received a score of 3	The assessment of professional behaviors among the Class of 2023 in the Radiography program reveals a strong adherence to professional judgment and respect for organizational policies and norms, as indicated by the adoption of this new assessment tool. With an average score of 3.96 out of a possible 4, the majority of the 23 students demonstrated exemplary conduct in the clinical setting. Notably, 22 students achieved the highest score of 4, showcasing their commitment to professionalism. Only one student received a score of 3, reflecting a minor area for improvement. Overall, this data suggests that the Class of 2023 is well-prepared to navigate the professional landscape of radiography, consistently upholding the standards expected in clinical practice. Based on the assessment tool’s performance, it has been determined that no modifications are necessary at this time.

Program Effectiveness Measures:						
Student Outcomes	Assessment Tool	Benchmark	Timeline	Faculty Responsible	Results per class	Analysis/Recommendations
1 The 5-year average pass rate for the ARRT credentialing examination is not less than 75% on the first attempt.	ARRT Annual Program Summary Report for WCC graduates	The five-year average pass rate of not less than 75% on the 1st attempt of the National Radiography Certificate Examination administered by the American Registry of Radiologic Technologist (ARRT).	Annually in July	Program Director	2019: 100% 2020: 100% 2021: 95% 2022: 100% 2023: 100% 5 Year Average 99%	The program’s effectiveness in preparing students for the ARRT credentialing examination is demonstrated through its impressive five-year average pass rate, which stands at 99%. This figure exceeds the benchmark requirement of a minimum 75% pass rate on the first attempt. Over the past five years, the program has consistently produced exceptional results, with students achieving a perfect or near-perfect pass rate each year: 100% in 2019, 100% in 2020, 95% in 2021, followed by another flawless performance of 100% in both 2022 and 2023. These results highlight the program’s commitment to excellence and its success in equipping students with the necessary knowledge and skills to excel in the National Radiography Certificate Examination administered by the ARRT.

2	5-year average job placement rate of graduates actively seeking employment is no less than 75% within 12 months of graduation.	Email & Social Media	Five-year average job placement rate of not less than 75% within 12 months of graduation.	Annually in July	Program Director	2019: 91% 2020: 95% 2021: 95% 2022: 100% 2023: 95% 22 of 23 Students 5 Year Average 95%	<p>The effectiveness of the program regarding job placement rates among graduates actively seeking employment is reflected in a commendable five-year average of 95%. Assessment data reveals a consistent upward trend over the past five years, with job placement rates rising from 91% in 2019 to an impressive 100% in 2022, and maintaining strong rates of 95% in both 2020 and 2023. Out of 23 students, 22 successfully secured employment within 12 months of graduation, demonstrating the program's effectiveness in preparing graduates for their careers.</p> <p>In a strategic move to enhance the relevance and timeliness of program assessments, the faculty has decided to establish a new benchmark for the Class of 2024. This change aligns with discussions regarding this assessment tool during the last Advisory Board Meeting in August of 2024. The current benchmark of a five-year average job placement rate of not less than 75% within 12 months of graduation will be revised to reflect a five-year average job placement rate of not less than 75% within 6 months of graduation.</p> <p>The rationale behind this change is multifaceted. First, a focus on a 6-month timeframe aligns the program's assessment measures with the current dynamics of the labor market, where graduates are increasingly motivated to secure employment quickly. This adjustment encourages a more immediate response from the program in supporting graduates as they transition into the workforce, ensuring that they can capitalize on job opportunities more effectively.</p> <p>Additionally, revising the benchmark to a 6-month standard allows faculty to finalize the program's annual assessment report for the graduating class at the beginning of the following year. This timeline enhances the program's ability to provide timely feedback regarding its effectiveness and bolster continuous improvement efforts based on the most current data.</p> <p>Importantly, while this new benchmark will enhance the program's annual assessment data, it will not replace the existing JRCERT benchmark related to the annual Program Effectiveness Data report. By maintaining adherence to established accreditation standards while adopting a more dynamic internal assessment measure, the program can uphold rigorous expectations and adapt to the ever-evolving job landscape in the radiologic field.</p> <p>Overall, this change demonstrates a commitment to continuous improvement and responsiveness to the needs of graduates, positioning the program for ongoing success in student placement and career readiness.</p>
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3	Students admitted to the program will successfully complete the program within the 2-year sequence.	Admission/ Graduation data	Effectiveness	Annually in July	Program Director	<p>*2019: 74% *2020: 69% #2021: 92% #2022: 80% #2023: 82%</p>	<p>The program's effectiveness in student retention and completion is evidenced by its evaluation of the completion rates over the last five years, aligning with benchmarks set for various graduating classes. For the Classes of 2019 and 2020, the benchmark stipulated that a minimum of 70% of admitted students would successfully complete the program within a two-year sequence. The data reveals that 74% of the Class of 2019 met this criterion, while the Class of 2020 slightly fell short at 69%.</p> <p>In contrast, for the Classes of 2021, 2022, and 2023, the program continued to maintain the benchmark of 70%, this time incorporating a refined completion rate calculation as defined by the Joint Review Committee on Education in Radiologic Technology (JRCERT). This adjustment excluded students who withdrew for nonacademic reasons, such as financial difficulties, health issues, family obligations, military service, or changes in academic focus. The outcomes for these latter classes reflect significant improvement, with the Class of 2021 achieving an exceptional completion rate of 92%. The Classes of 2022 and 2023 also demonstrated strong retention, with completion rates of 80% and 82%, respectively.</p> <p>Overall, these results underscore the program's commitment to supporting students through their educational journey, adapting benchmarks and measures to better reflect the factors influencing student success. The continuous improvement in completion rates indicates effective program management and student support initiatives.</p>
4	Graduates will indicate that the program adequately prepared them for entry-level positions.	Graduate Exit Survey (Question 11) "Do you feel that the WCC Radiography Program prepared you for an entry-level position in a radiology department?"	Average score > 3 (5-point scale; 5 = strongly agree, 1=strongly disagree)	Annually in July	Program Director	<p>2019: Average score 4.8 21 (91%) of 23 graduates responded 17 graduates (80.9%) Strongly agree 4 graduates (19%) Agree</p> <p>2020: Average score 4.6 22 (100%) of 22 graduates responded 14 graduates (64%) Strongly agree 8 graduates (36%) Agree</p> <p>2021: Average score 4.9 21 (95%) of 22 graduates responded 20 graduates (95%) Strongly agree 1 graduates (5%) Agree</p> <p>2022: Average score 4.9 20 (100%) of 20 graduates responded 17 graduates (85%) Strongly agree 3 graduates (15%) Agree</p> <p>2023: Average score 4.9 23 (100%) of 23 graduates responded 21 graduates (91%) Strongly agree 2 graduates (9%) Agree</p>	<p>The program's effectiveness in preparing graduates for entry-level positions in radiology is evidenced by consistently high scores on the Graduate Exit Survey, which includes the critical question, "Do you feel that the WCC Radiography Program prepared you for an entry-level position in a radiology department?" Over the years, the average scores reflect a strong sense of preparedness among graduates.</p> <p>In 2019, graduates rated their preparation with an impressive average score of 4.8, with 21 out of 23 responding to the survey. Of these, 80.9% strongly agreed that they felt well-prepared, while 19% agreed. The following year, 2020, saw a slight dip in the average score to 4.6, but all 22 graduates participated in the survey. Among them, 64% strongly agreed with their preparedness, and 36% agreed.</p> <p>The program rebounded in 2021, achieving an average score of 4.9, with 95% of graduates strongly agreeing that they were adequately prepared for their roles in radiology. This trend continued into 2022, where the average score remained at 4.9, with 85% strongly agreeing and 15% agreeing.</p> <p>In 2023, the program maintained this high standard, again reaching an average score of 4.9. All 23 graduates responded, with 91% strongly agreeing that the program prepared them for entry-level positions and 9% agreeing.</p> <p>Overall, the assessments reveal a clear and positive trend in graduate satisfaction regarding the program's efficacy in equipping them for their professional careers, demonstrating the program's commitment to excellence in education and its alignment with industry expectations.</p>

5	Employers will indicate that the program graduates are adequately prepared for entry-level positions.	Radiography Student Professional Skills Evaluation "If an entry-level radiographer position was available within the department, I would consider hiring this student."	Average score > 3 (4-point scale)	Annually in June	Clinical Coordinator	<p>2019 Average score 3.78 18 students (78%) received a score of 4 5 students (22%) received a score of 3</p> <p>2020 Average score 3.82 18 students (86%) received a score of 4 4 students (14%) received a score of 3</p> <p>2021 Average score 3.94 14 students (93%) received a score of 4 1 students (7%) received a score of 3</p> <p>2022 Average score 3.82 16 students (80%) received a score of 4 4 students (20%) received a score of 3</p> <p>2023 Average score 3.87 20 students (87%) received a score of 4 3 students (13%) received a score of 3</p>	<p>The program demonstrates a strong track record of preparing graduates for entry-level positions in radiography, as reflected in the feedback from employers through the Radiography Student Professional Skills Evaluation. This assessment asks employers to evaluate whether they would consider hiring the graduating students for available entry-level positions.</p> <p>Over the years, the average scores indicate a positive trend in employer perceptions of student preparedness. In 2019, the average score was 3.78, with 78% of students receiving a top score of 4, while 22% received a score of 3. The following year, 2020, saw an improvement with an average score of 3.82; 86% of the evaluated students earned a score of 4, signifying strong readiness for the workforce.</p> <p>The program achieved a notable peak in 2021, with an average score of 3.94. Impressively, 93% of the students received a score of 4, reflecting a high level of confidence from employers in the graduates' abilities. In 2022, the average score slightly decreased to 3.82, with 80% of students again securing a score of 4, yet still indicating solid employer satisfaction.</p> <p>In 2023, the average score rose again to 3.87, with 87% of students receiving a score of 4 and 13% a score of 3. These results underscore the program's consistent ability to cultivate skills and competencies that meet employer expectations, reaffirming the program's commitment to producing highly qualified graduates ready to excel in entry-level radiography positions. Overall, the data indicates a steady improvement in employer confidence in the preparedness of program graduates over the assessed years.</p>
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