

# **Radiography Program Meeting**

## **January 23<sup>rd</sup>, 2025**

### **9:00 a.m. – 11:00 a.m.**

The faculty analyzed the program's assessment data for the Class of 2023.

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

For Student Learning Outcome 1.1, focusing on the performance of diagnostic radiographic procedures, significant trends emerged across classes. For the RAD 120 Final Performance evaluation assessing technical aptitude, the Class of 2020 exhibited a solid average score of 3.6, with a majority achieving high marks. The hiatus in data collection during the COVID-19 pandemic saw the Class of 2022 rebound achieving an average of 4.18 and demonstrating exemplary technical aptitude. The Class of 2023 showed a slight decline to an average of 4.08, though it surprisingly had a greater percentage of students scoring in the upper middle range. This could signify a potential shift in performance dynamics, suggesting that while overall averages decreased, students are developing more varied skill levels, warranting closer faculty observation. This will continue to be monitored by Ms. Hammond.

The RAD 150 assessment revealed higher performance levels in radiographic positioning simulation exercises. The widening of the assessment to include the upper and lower extremities was positively received, as the Class of 2023 achieved an impressive average score of 97.7%, indicating a mastery of essential positioning techniques, thus validating the new assessment strategy.

For the competency maintenance evaluation in RAD 240, students continued to demonstrate high achievement with an average score of 4.96 for the Class of 2023, mirroring the previous trend of increasing competence. This consistent performance across cohorts suggests successful instruction from Ms. Hammond, who emphasizes from the very beginning of students' clinical training that they must demonstrate a proficient competency level for each procedure they have mastered, ensuring that they internalize the importance of maintaining their skills throughout their education. After a brief discussion by faculty, it was determined that the benchmark for this assessment tool should be increased to Average score  $\geq 4$  (1 – 5-point scale).

In terms of Student Learning Outcome 1.2, assessment tools for basic patient care skills reflected variable performance. Initially, the Class of 2020 and Class of 2021 scored similarly on patient transfer competencies, while a redesigned rubric in 2023 led to significant improvement, with students averaging 45 points out of 48. This refinement signals an effective adjustment in teaching methods, underscoring the importance of continuous evaluation in curriculum development.

Lastly, the transition from venipuncture skills assessment to vital signs evaluation in RAD 222 illustrates a faculty commitment to enhancing essential patient care skills. The 100% success rate of the Class of 2023 in mastering vital signs reflects keen instructional strategies and a deep student engagement in learning. Mr. Skufis commented that his approach to teaching and evaluating these skills was well received by the students.

Overall, faculty interpretations suggest an optimistic trajectory in student performance and skill acquisition, along with an ongoing commitment to refining assessment tools for continuous improvement in the program. While performance trends indicate notable successes, areas of slight downturn prompt a

proactive attitude toward enhancing student support and instructional effectiveness. Thus, the assessments will continue to be monitored to adapt strategies that align with student needs and industry standards.

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

The assessment data for Goal 2, which emphasizes critical thinking and problem-solving skills among students, reveals significant improvements and consistent competency over the academic years from 2018 to 2023.

For Student Learning Outcome 2.1, focusing on the calculation of correct exposure factors, there has been a notable upward trend in scores. The initial cohort, the Class of 2020, reported a low average score of 22.25 on the RAD 124 Exposure Maintenance formula lab assignment, indicating a need for an enhanced understanding of foundational concepts. However, subsequent classes have shown steady improvement, culminating in the Class of 2023 achieving an average score of 24.1. Faculty interpret this progression as a reflection of effective instructional strategies and increased student engagement with the material, although Mr. Nelson will remain vigilant to ensure continued improvement.

In the RAD 217 Radiographic Technique Manual Project, students demonstrated exceptional proficiency, with average scores remaining consistently high, peaking at 98.5% for the Class of 2023. This sustained performance suggests that at that point in the program, students have begun to recognize the critical importance of knowing exposure factors for digital imaging, a concept that Ms. Hammond has consistently emphasized during each simulation evaluation to reinforce its significance in their professional development.

Moving to Student Learning Outcome 2.2, which examines problem-solving in clinical settings, the RAD 225 Final Evaluation data indicate a generally positive trend in critical thinking capabilities. The initial average score of 3.8 for the Class of 2019 showcased a solid understanding of navigating clinical scenarios. Although there was a slight dip for the Class of 2020, subsequent cohorts rebounded strongly, with the Class of 2021 achieving an average of 4.73, highlighting a marked improvement after implementing a five-point scale. The Class of 2023 maintained a strong average score of 4.6, suggesting students are increasingly capable of addressing challenges effectively.

Similarly, the Radiography Student Professional Skills Evaluation reflects this growth, with average scores fluctuating around 3.8 across the classes, though a minor drop occurred in the Class of 2022. The Class of 2023 showcased a slight rebound to 3.83, indicating that students are consistently demonstrating problem-solving abilities, which faculty view as a sign of their preparedness for real-world scenarios.

In summary, the assessment results indicate a healthy development of critical thinking and problem-solving skills among radiography students, particularly evident after the introduction of new assessment scales that better capture performance nuances. Faculty interpretations suggest that while the program is effectively fostering these skills, continuous evaluation and potential refinement of assessment tools may help further enhance student outcomes in this vital area of radiography practice. As discussions about possible replacements for certain assessment tools unfold, this ongoing reflection will ensure that the program continues to meet high educational standards.

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

The assessment data for Goal 3, focusing on effective communication skills among students, highlights significant progress in both oral and written competencies from 2018 to 2023, showcasing the program's effectiveness in fostering these essential skills.

For Student Learning Outcome 3.1, which emphasizes oral communication, scores for the RAD 120 Final Performance evaluation (Patient Communication) have consistently improved. The Class of 2020 maintained a solid average score of 3.7, but after a gap in data collection due to COVID-19, the introduction of a new five-point scale resulted in remarkable enhancements for the Classes of 2022 and 2023. The Class of 2022 achieved an average score of 4.27, and the Class of 2023 further improved to 4.36, with a significant percentage of students scoring in the top ranges. Faculty interpret this upward trend as a reflection of refined pedagogical approaches during the student's first semester in the program (RAD 101 Methods in Patient Care and RAD 103 Medical Professionalism in Clinical Radiography) and increased emphasis on patient communication, ensuring that students are not just meeting but exceeding professional expectations.

In the context of the Radiography Student Professional Skills Evaluation, the Class of 2023 stands out with every student receiving the highest possible score of 4, showcasing their readiness to enter the profession confidently. This collective achievement reinforces the faculty's belief that students are effectively prepared for real-world clinical interactions, validating the instructional strategies employed in the program.

Student Learning Outcome 3.2, which assesses writing skills, reflects an astonishing consistency in high performance across several years, particularly in the RAD 120 Contrast Case Study Paper where average scores remained at 97. The Class of 2023 exhibited remarkable individual performances, including multiple high scores, indicating a sustained commitment to excellence in written communication. Faculty will discuss a possible replacement for this assessment tool after the next cohort review (Class of 2024).

An analysis of the RAD 225 Advanced-Level Training Research Paper demonstrates a continual upward trajectory, culminating in an average score of 99 for the Class of 2023, with 21 students attaining a perfect score of 100. Ms. Hammond was very pleased with the papers she received from each student.

Overall, the data from both oral and written communication assessments reveal an encouraging trend of growth, competence, and readiness among our students. Faculty interpretations suggest that this upward momentum can be attributed to effective instructional strategies and a vigorous curriculum that prioritizes the development of essential communication skills necessary for professional success. As the program evolves, continuous reflection and potential adjustments to assessment methods will ensure ongoing excellence and responsiveness to student learning needs.

**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.**

The assessment data for Goal 4 highlights the progression in professional values, attitudes, behaviors, and ethics among students, particularly regarding their understanding and recognition of ethical issues as well as their professional conduct in clinical settings.

For Student Learning Outcome 4.1, which assesses the ability to recognize ethical and medical issues in patient care, the data shows a generally strong performance trajectory. The Class of 2020 maintained a high average score of 94 in the RAD 110 writing assignment, but there was a noticeable dip for the Class of 2021 at 85. However, this decline was short-lived, as the Class of 2022 rebounded to an average of 93, followed by the Class of 2023 with an average of 92. Faculty interpret this resurgence as a positive indication of improved instructional methods emphasizing communication and cultural competence,

essential competencies for future radiographers. Moreover, individual standout performances, including perfect scores, reflect that some students have a strong grasp of ethical considerations, though the presence of low scores, including a score of 0, underscores the need for targeted support to enhance overall comprehension. Ms. Hammond reminded the faculty that the student who received a zero for this report decided to withdraw from the program before the end of the semester.

In RAD 103, students consistently scored an average of 39 on essay questions regarding ethical and medical issues which suggests a solid foundational understanding of this topic. The introduction of an ARRT Code of Ethics assignment in RAD 222 for the Class of 2023 resulted in an impressive average score of 38.91 out of 40, with many students achieving perfect scores. This transition signifies the faculty's proactive approach to deepening students' ethical understanding and preparing them for the complexities they will face in the clinical setting.

For Student Learning Outcome 4.2, evaluating professional behavior in clinical settings, the RAD 150 Final Performance Evaluation reflects a strong emphasis among students to interact in a professional manner with clinical staff and peers. The average score for the Class of 2022 reached a remarkable 4.86, indicating significant growth in professional behaviors, although the Class of 2023 moderated to an average score of 4.42, which still signifies strong performance. Faculty interpretations suggest a successful focus on cultivating a professional environment, critical for future success in their careers.

The Radiography Student Professional Skills Evaluation also shows a positive trend regarding professionalism, with scores remaining around 3.7 to 3.95 over multiple years. This consistency indicates students are well-prepared for professional interactions, according to program expectations. The faculty's decision to adapt the assessment tool to include the 12th statement, focusing on professional judgment and respect for organizational norms, reflects an understanding of the need for a broader evaluation of students' readiness to navigate complex clinical environments. Overall, the Class of 2023 showcased a strong adherence to professional standards, reflected in their impressive average score of 3.96 on the new evaluation. With 22 out of 23 students achieving the highest score, the data suggests that the cohort is exceptionally prepared to uphold the professionalism expected in clinical practice.

In summary, faculty view these outcomes as indicators of the program's effectiveness in instilling essential professional values, while also acknowledging the areas of improvement highlighted by the few lower scores. Continuous monitoring and adaptation of assessments will further enhance students' professional development as they transition into their healthcare roles.

### **Program Effectiveness Measures**

The program's effectiveness in educating students for careers in radiography is underscored by a range of impressive outcomes over the last five years. The ARRT credentialing examination pass rate stands at an exceptional 99%, consistently surpassing the required 75% benchmark on first attempts. Faculty interpret these results as indicative of the program's strong curriculum and dedicated instruction that adequately equips students for their professional certifications. Graduates have showcased flawless pass rates, with notable performances each year, emphasizing the program's commitment to academic excellence!

The graduates of the program have shown impressive effectiveness in job placement, with a remarkable five-year average of 95% for those actively seeking employment. This figure has steadily risen over time, culminating in an outstanding 100% placement rate in 2022, maintaining robust numbers at 95% in 2020 and 2023. Out of 23 students, 22 secured employment within 12 months, a clear testament to the program's preparation for career success.

In light of these strong results and after discussions with advisory board members during the last advisory board meeting ('24 August), the faculty has decided to revise the effectiveness benchmark for the Class of 2024. The previous standard requiring a 75% placement rate within 12 months of graduation will now focus on a 6-month timeframe, reflecting a strategic alignment with the fast-paced labor market dynamics. As suggested during the meeting, this change will facilitate the completion of the annual assessment report within a tighter timeline, allowing for more immediate feedback on the program's performance. The faculty interprets this adjustment as an essential step toward optimizing the relevance of their assessments and enhancing continuous improvement efforts using the most current data.

Importantly, while this adaptation showcases the program's commitment to responsiveness and improvement, it will not disrupt adherence to existing accreditation standards set by JRCERT regarding program effectiveness data. The report submitted to the JRCERT will still follow the within 12 months of graduation guideline. Faculty members see this dual approach as a means to uphold rigorous educational expectations while effectively navigating the evolving job landscape in the field of radiography.

The completion rates illustrate the program's supportive environment and student-centered approach, with a notable jump in successful completions to 92% for the Class of 2021 and solid results for subsequent classes. Faculty appreciate the adjustments made to calculate these rates, which account for personal circumstances, indicating a nuanced understanding of student challenges.

Feedback from graduate exit surveys consistently shows high levels of satisfaction regarding preparedness for entry-level positions, with average scores maintaining around 4.9 in recent years. Faculty may interpret this as a clear validation of the program's educational effectiveness and strong alignment with the demands of the field.

Lastly, evaluations from employers echo this sentiment, showing increasing confidence in the graduates' readiness for entry-level roles. With average scores reaching 3.87 and a significant percentage of students rated top-tier, faculty view these assessments as crucial feedback that reflects both the quality of education provided and the success of their instructional methodologies in preparing students for the workforce.

Overall, the data paints a favorable picture of the program's output, suggesting that faculty, through a combination of innovative teaching practices and industry engagement, have successfully cultivated a learning environment that not only meets but exceeds expectations for student preparedness and job readiness in the radiography field.

#### **Assessment Plan Review:**

The following is a synopsis of the changes recommended by the program faculty:

#### **SLO 1.1 - Students will perform diagnostic radiographic procedures.**

The benchmark for assessment tool 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” will be changed from Average score  $\geq 3.5$  (1 – 5-point scale) to Average score  $\geq 4$  (1 – 5-point scale).

#### **The rationale for Updating the Benchmark:**

The change in the benchmark score for the RAD 240 - Final Clinical Performance Evaluation from an average score of  $\geq 3.5$  to  $\geq 4$  reflects a commitment to higher competency standards within clinical practice. By raising the threshold, the evaluation emphasizes the importance of proficiency and confidence in performing exams independently, which aligns with professional expectations set by our program.

**Program Effectiveness Measure**

**Initial Student Outcome** – The 5-year average job placement rate of graduates actively seeking employment is no less than 75% within *12 months* of graduation.

**New Student Outcome** - The 5-year average job placement rate of graduates actively seeking employment is no less than 75% within *6 months* of graduation.

**The rationale for Updating the Assessment Tool:**

The faculty is revising the job placement benchmark for the upcoming assessment data review from a five-year average of 75% employment within 12 months to 75% within 6 months post-graduation. This change aligns assessments with current labor market dynamics while allowing for timely annual assessment reports, facilitating immediate feedback for continuous program improvement. Importantly, this new 6-month benchmark will not be a substitute for existing accreditation standards established by the JRCERT for the annual Program Effectiveness Data reports.

The change will be presented for discussion at the upcoming advisory board meeting, but since it had been suggested previously, faculty believe this change will be accepted by all board members.

**Program Mission Statement Reviewed:**

No recommendations to change the Program's Mission Statement