

Radiologic Technology Program Analysis Summary

Marion Technical College

July 2021– June 2023

College Mission Statement

The mission of the College is to provide the region's most accessible, supportive, and personal pathway to career success.

Radiography Program Mission Statement

To provide an environment for student radiographers to become qualified and competent technologists in a healthcare setting. We partner with the healthcare community to provide higher education for radiographers and the School encourages the process of life-long learning.

| Goal 1: Students will demonstrate the skill of an entry level radiographer. | | | | | | | |
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| Outcome | Measurement Tool | Benchmark | Timeframe | Responsible Party | Actual Outcome | Trends | Action Taken |
| 1.1 Students/Graduates will demonstrate correct positioning skills. | 1.1 Clinical Coordinator Evaluation Form (Positioning Section) | Students will average a 85% | RAD 1200 (2 nd semester) RAD 2201 (5th semester) | Clinical Coordinator | The class average for RAD 1200 was 85%. The class average for RAD 2201 was 87%. | 2023 87% 2022 87% 2021 88% 2020 89% 2019 88% 2018 87% 2017 88% 2016 90% 2015 90% 2014 87% | Benchmark met. Stable trend. Continue to refine skills through labs and practice sessions as needed. |
| | 1.1 Clinical Preceptor Evaluation Form (Positioning Section) | Students will average an 85% | RAD 1200 (2 nd semester) RAD 2201 (5th semester) | Clinical Preceptor | The class average for RAD 1200 was 89%. The class average for RAD 2201 was 95% | 2023 95% | Benchmark met. New assessment parameter. Will continue to monitor for changes. |

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| 1.2 Students/Graduates will practice optimal exposure factors. | 1.2 Development of technique chart HESI Exit Exam | Students will average a 85% Score of 750 | RAD 1300 RAD 2060 | Clinical Coordinator Program Director | The class average for this assignment was 91% HESI Exposure Average 775 | 2023 91% | Benchmark met. New assessment parameter. Will continue to monitor for changes. Implemented to improve exposure scores. |
| | 1.2 Clinical Coordinator Evaluation Form (Exposure Section) | Students will average an 85% | RAD 1200 (2 nd semester) RAD 2201 (5 th semester) | Clinical Coordinator | The class average for RAD 1200 was 86%. The class average for RAD 2201 was 84%. | 2023 84% 2022 84% 2021 83% 2020 87% 2019 86% 2018 87% 2017 88% 2016 89% 2015 89 % 2014 88% | Benchmark not met. Stable trend. Will continue to review during classes and student evals. Students continue to set and understand manual techniques and how it affects the exposure index. |
| 1.3 Student/Graduates will provide patient education, comfort, and basic patient care, anticipate patient needs and recognize emergent conditions requiring initiation of first-aid and basic life support procedures. | 1.3 Clinical Coordinator Evaluation Form (Patient Care Section) | Students will average an 85% | RAD 1200 (2 nd semester) RAD 2201 (5 th semester) | Clinical Coordinator | The class average for RAD 1200 was 87%. The class average for RAD 2201 was 87%. | 2023 87% 2022 88% 2021 88% 2020 89% 2019 88% 2018 89% 2017 90% 2016 91% 2015 90% 2014 87% | Benchmark met. Slight downward trend. Will continue to review during classes and student evals. |

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| | 1.3 Clinical Preceptor Evaluation Form (Patient Care Section) | Minimum comprehensive score of 85% | RAD 1200 2 nd semester RAD 2201 5 th semester | Clinical Preceptor | The class average for RAD 1200 was 88%. The class average for RAD 2201 was 93%. | 2023 93% | Benchmark met. New assessment parameter. Will continue to monitor for changes. |
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Action/Analysis:

1.1 WE implemented a new parameter to evaluate positioning skills. The benchmark continues to be met. We believe the new parameter will be an effective way to evaluate our students.

1.2 While the average score of HESI exit exam was 775 some students continue to score below the 750 threshold. Students requested additional lecture time and in class quizzing.

1.3 We implemented a new parameter to assess patient care skills, the benchmark was met. We will continue to monitor. We believe this parameter is an effective way to evaluate this parameter.

Review sessions are held during summer semester to reinforce skills which were taught early in the program. Kettering Review session was held in May prior to graduation.

Students make technique charts for their clinical site during the summer semester to help their understanding of techniques and how it affects patient exposure.

Downward trend of comprehensive test results. Comprehensive tests scores are not calculated into student's grades. We believe the reason for the downward trend is lack of preparation because student grades are not affected by the outcome of the test results. Will develop action plan or select another tool to assess benchmark. Marion Technical College currently utilizes the HESI testing system during the student's final semester. All radiography students must pass the HESI test with a score of 750 or higher in order to graduate. The program is meeting that benchmark of over 80%.

Action Plan for Improvement regarding Comprehensive Test Scores:

Currently the comprehensive testing is not included in the students grade even though the exam is graded. The plan is to include the comprehensive test scores as part of the student's clinical grade. We believe the students will begin to student for exam prior to the program's final semester. This change was discussed during MIP department meetings. The change will be discussed with student during October 2019 student meeting. The action plan will also be discussed during the Advisory Committee meeting to be held November 2019.

If action plan does not improve outcomes, we will select an alternate tool for assessment of these skills.

HESI Analysis for Class of 2020 was the overall HESI score. In order for the student to pass the radiography review class, the student must obtain a score of 700 on one of the two HESI EXAMS. We no longer use comprehensive exams during the final semester because the tests are becoming outdated due to advancements in technology. Student feedback regarding HESI has remained positive. We will continue to monitor national credential pass rates and student success.

| Goal #2: The student will demonstrate critical thinking and problem-solving skills. | | | | | | | |
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| Outcome | Measurement Tool | Benchmark | Timeframe | Responsible Party | Actual Outcome | Trends | Action Taken |
| 2.1 Students/Graduates will exercise independent judgment and critical thinking skills. | 2.1 Clinical Coordinator Evaluation (Independent Judgment) | Students will average an 85% | RAD 1200 (2 nd semester) RAD 2201 (5th semester) | Clinical Coordinator | The class average for RAD 1200 was 85%. The class average for RAD 2201 was 86%. | 2023 86% 2022 88% 2021 87% 2020 89% 2019 88% 2018 88% 2017 90% 2016 90% 2015 90% 2014 89% . | Benchmark met. Slight downward trend. Will continue to refine skills during critical thinking classes. |
| | 2.1 Problem Solving /Decision Making Rubric | Students receive a minimum competency score of 12.8 pts out of possible 16 pts. | RAD 2201 | Clinical Coordinator | The class average was 14.1. | 2023 14.1 2022 14.75 2021 14.2 2020 15.1 2019 14.3 2018 15.1 2017 15.25 2016 15.5 2015 15.5 2014 14.4 | Benchmark met. Stable trend. Will continue to refine skills during critical thinking classes and assignments. |

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| 2.2 Students/Graduates will evaluate images for optimal technical factors and appropriate positioning. IMAGE ANALYSIS | 2.2 Clinical Coordinator Evaluation Form (Image Analysis Section) | Students will average an 85% | RAD 1200 (2 nd semester) RAD 2201 (5 th semester) | Clinical Coordinator | The class average for RAD 1200 was 86%. The class average for RAD 2201 was 87%. | 2023 87% 2022 87% 2021 87% 2020 89% 2019 88% 2018 88% 2017 89% 2016 90% 2015 87% 2014 89% | Benchmark met. Stable trend. Will continue to improve skills during image analysis class and lab. |
| | 2.2 Image Analysis Test Scores | Students will average an Image Analysis test grade of 85% or above. | RAD 1200 (2 nd semester) RAD 2201 (5 th semester) | Clinical Coordinator | The class average for RAD 1200 was 86%. The class average for RAD 2201 was 85%. | 2023 85% 2022 82% 2021 80% 2020 88% 2019 88% 2018 84% 2017 82% 2016 84% 2015 82% 2014 83% | Benchmark met. Slight upward trend. Will continue to improve skills during image analysis class and lab. |
| 2.3 Employers are satisfied with graduate problem-solving skills. | 2.3 Employer Survey Question # 16 | Survey results will indicate an average ≥ 3.2 on a scale of 0-4 | Annually | Program Director | The class average was a 3.92 | 2023 3.92 2022 3.64 2021 3.9 2020 3.31 2019 3.5 2018 3.43 2017 2.38 2016 3.9 2015 4.0 2014 3.2 2013 3.8 2012 3.88 2011 4.0 | All comments were positive. All students received a score of 3 or higher. Class average trended upward. |

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| 2.4 Students/Graduates will modify routine imaging parameters for trauma patients. | 2.4 Clinical Coordinator Evaluation Form (Accommodations) | Students will average an 85% | RAD 1200 (2nd semester) RAD 2201 (5 th semester) | Clinical Coordinator | The class average for RAD 1200 was 85%. The class average for RAD 2201 was 86%. | 2023 86% 2022 89% 2021 87% 2020 89% 2019 89% 2018 89% 2017 89% 2016 90% 2015 89% 2014 90% | Benchmark met. Stable trend. Will continue to refine trauma skills. Recent additions of trauma clinical sites will improve skills. |
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Action/Analysis:

2.1 Stable trend

2.2 Upward trend

2.3 Upward trend. Employers are satisfied with our graduates

2.4 Additional trauma clinical sites added. We believe this will improve student skill set.

Mentoring policy was implemented Fall 2015 as an added resource to improve retention, improve moral, and reduce stress level. Coaching sessions were added as a student resource. If a student is struggling in a specific area, faculty will meet with the student one on one. The faculty member will discuss learning strategies to improve deficiency. Students are introduced to critical thinking and problem solving during their 1st spring semester. After introduction, students are required to complete critical thinking and problem solving scenarios each semester until graduation. The final scenario is graded by CGC rubric. Data is collected for assessment by the college.

2017. Critical thinking benchmark was not met with regard to employer surveys. We are meeting with clinical instructors and advisory committee members to develop an action plan. The advisory committee meeting will be held November 2018. We believe the trend will rise for the class of 2018. Since 2018 employer's evaluation of new hires have remained positive. For 2020 one new hire received a 2 in the category of critical thinking but no additional information was received to understand the reasoning for lower score. All comments have remained positive. Will continue to monitor.

| Goal #3: Students will exemplify appropriate communication skills. | | | | | | | |
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| Outcome | Measurement Tool | Benchmark | Timeframe | Responsible Party | Actual Outcome | Trends | Action Taken |
| 3.1 Students/Graduates will demonstrate oral communication skills. | 3.1 Clinical Coordinator Evaluation (Communication Section) | Students will average an 85% | RAD 1200 2 nd semester RAD 2201 5 th semester | Clinical Coordinator | The class average for RAD 1200 was 89%. The class average for RAD 2201 was 90%. | 2023 90% 2022 90% 2021 89% 2020 90% 2019 90% 2018 90% 2017 91% 2016 92% 2015 93% 2014 91% | Benchmark met. Stable trend. Will continue to refine patient history skills and professional communication. |
| | 3.1 RAD 2050–Pathology Oral Presentation Rubric | Students will average 19pts of a possible 24 pts | Spring Quarter Final quarter | Course Instructor | The class average for RAD 2050 was 22.44 | 2023 22.44 2022 22.81 2021 23.33 2020 23.12 2019 23 2018 23.1 2017 22.08 2016 22.3 2015 22.2 2014 21.7 | Stable trend |
| 3.2 Students/Graduates will demonstrate written communication skills. | 3.2 RAD 2050 Pathology Written Presentation Rubric | Students will average 19pts of a possible 24 pts. | Spring Quarter Final quarter | Course Instructor | The class average for RAD 2050 was 22.19 | 2023 22.19 2022 22.63 2021 23.2 2020 22.94 2019 21.8 2018 23.4 2017 22.08 2016 22.4 2015 21.9 2014 21.3 | Stable trend |

Action/Analysis:

3.1 No action required trend is stable. Students continue to present quality projects

3.2 No action required trend is stable. Students continue to submit scholarly written presentations.

Our students do a great job with regard to communication. We believe Urgent Care rotations provide a great resource which helps develop our student's skill set. Examples of Written and Oral Communication Projects are uploaded on student learning management system as a resource. We believe this is the reason for the upward trend. Any student who does not receive a 19 or higher on the written communication rubric is asked to review report, make corrections, and resubmit. Since this policy was implemented, benchmark has been met.

| Goal #4: Students will exhibit professionalism. | | | | | | | |
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| Outcome | Measurement Tool | Benchmark | Timeframe | Responsible Party | Actual Outcome | Trends | Action Taken |
| 4.1 Students/Graduates will demonstrate professional skills. | 4.1 Clinical Coordinator Evaluation Form (Professional Section) | Students will average an 85% | RAD 1200 2 nd semester RAD 2201 5 th semester | Clinical Coordinator | The class average for RAD 1200 was 88%. The class average for RAD 2201 was 90%. | 2023 90% 2022 89% 2021 89% 2020 92% 2019 90% 2018 90% 2017 91% 2016 91% 2015 91% 2014 90% | Benchmark met. Stable trend. Will continue to refine skills and educate about social media problems. |

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| | 4.1 College Graduate Competency-Professionalism Rubric | Students receive a minimum competency score of 41.6 pts out of possible 52 pts. | RAD 1200 (2 nd semester) RAD 2201 (5 th semester) | Clinical Coordinator | The class average for RAD 1200 was 48.81. The class average for RAD 2201 was 48.31. | 2023 48.31 2022 48.12 2021 47.47 2020 50.3 2019 14.35 2018 15.1 2017 15.25 2016 15.5 2015 15.75 2014 14.7 2012 16.4 2011 14.92 | Benchmark met. Stable trend. Will continue to refine skills in professionalism. |
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| Outcome | Measurement Tool | Benchmark | Timeframe | Responsible Party | Results | Trends |
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| 4.2 Employers will be satisfied with the performance of newly hired technologists | 4.2 Employer Survey Question # 15 | Survey results will indicate an average ≥ 3.2 on a scale of 0-4. | 12 months post-graduation (or upon completion by all) | Program Director | 2023 4.0 2022 3.842 2021 3.956 2020 3.559 2019: 3.748 2018: 3.524 2017: 2.62 2016: 3.902 2015: 3.82 2014: 3.2 2013: 3.975 2012: 3.923 | Upward trend. Employers satisfied with graduates. |

Action/Analysis:

4.1 Seeing some social media problems. We continue to work with our students to develop appropriate professional skill set.

4.2 No action required. Employers are satisfied with performance of graduates.

Graduates seem to be satisfied with their education.

The employer satisfaction score dropped. The graduating class displayed difficult personalities during the classroom and clinical settings. We will continue to monitor this issue. We are working with clinical instructors and advisory committee to implement an action plan to improve scores with regard to critical thinking skills.

The college updated the college graduate competencies for the professionalism and problem solving/decision making rubric. The rubric is now out of a possible 52 points. The benchmark is 41.6 points which equates to a 80%.