

Radiologic Technology Program Analysis Summary

Marion Technical College

July 2019– June 2020

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.							
Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Actual Outcome	Trends	Action Taken
Students/Graduates will demonstrate correct positioning skills.	Comprehensive Test (Positioning Section) RAD 1200 2 nd term RAD 2201 5 th term	Students will average a 85%	2 nd term 5 th term	Program Director	The class average for RAD 1200 was 71% HESI FINAL- All student met 700 benchmark in this category.	2020 71% 2019 69.1 2018 74% 2017 82% 2016 82.5% 2015 76% 2014 79% 2013 74% 2012 85% 2011 78.27%	Continue review classes. Refine positioning skills. Average improved somewhat over 2019.
	Semester Evaluation Form (Positioning 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 85%. The class average for RAD 2201 was 89%.	2020 89% 2019 88% 2018 87% 2017 88% 2016 90% 2015 90% 2014 87%	Stable Trend

Students/Graduates will practice optimal exposure factors.	Comprehensive Test (Exposure Section) RAD 1200 2 nd term RAD 2201 5 th term	Students will average a 85%	RAD 1200 2 nd term RAD 2201 5 th term	Program Director	The class average for RAD 1200 71% HESI FINAL All student met 700 benchmark	2020 71% 2019 69% 2018 69% 2017 64% 2016 76% 2015 76% 2014 74% 2013 75% 2012 81.93% 2011 83.63%	Continue review classes. Purchased RAD pro software for classes.
	Semester 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 83%. The class average for RAD 2201 was 87%.	2020 87% 2019 86% 2018 87% 2017 88% 2016 89% 2015 89% 2014 88%	Stable Trend
Student/Graduates will provide patient care.	Semester 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 84%. The class average for RAD 2201 was 89%.	2020 89% 2019 88% 2018 89% 2017 90% 2016 91% 2015 90% 2014 87%	Stable Trend
	Comprehensive Test (Patient Care Section)	Minimum comprehensive score of 85%	RAD 1200 2 nd semester RAD 2201 5 th semester	Program Director	The class average for RAD 1200 was 68% HESI FINAL Mean score was 722	2020 68% 2019 79% 2018 78% 2017 88% 2016 91% 2015 85% 2014 90%	Many students complete patient care class prior to program acceptance. Continue to review patient care questions during class meetings.

Action/Analysis: *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 700 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.							
Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Actual Outcome	Trends	Action Taken
Students/Graduates will exercise independent judgment and critical thinking skills.	Semester Evaluation (Independent Judgment)	Students will average an 85%	RAD 1200 (2 nd semester) RAD 2201 (5 th semester)	Clinical Coordinator	The class average for RAD 1200 was 84%. The class average for RAD 2201 was 89%.	2020 89% 2019 88% 2018 88% 2017 90% 2016 90% 2015 90% 2014 89%	Stable Trend
Students/Graduates will evaluate images for optimal technical factors and appropriate positioning.	Semester 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 89%.	2020 89% 2019 88% 2018 88% 2017 89% 2016 90% 2015 87% 2014 89%	Stable Trend
	Clinical Test Scores	Students achieve a minimum clinical 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 89%. The class average for RAD 2201 was 88%.	2020 88% 2019 88% 2018 84% 2017 82% 2016 84% 2015 82% 2014 83%	Stable trend

Employers are satisfied with graduate problem solving skills.	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 3.31	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	One student received a 2 rating but no comments were made to suggest shortfall or improvement. All comments were positive.
Students/Graduates will modify routine imaging parameters for trauma patients.	Semester 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 89%.	2020 89% 2019 89% 2018 89% 2017 89% 2016 90% 2015 89% 2014 90%	Stable Trend
	Lab Simulations	Students must pass lab simulations prior to competency testing.	All clinical courses	Clinical Coordinator	All students pass routine lab simulations before competency evaluation.		If students fail a procedure 2 times they must write a paper to reinforce skills. They also practice with clinical preceptor.

Action/Analysis:

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 be able to communicate.								
Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Actual Outcome	Trends	Action Taken	
Students/Graduates will demonstrate oral communication skills.	Semester 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 88%. The class average for RAD 2201 was 90%.	2020 90% 2019 90% 2018 90% 2017 91% 2016 92% 2015 93% 2014 91%	Stable Trend	
	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 23.12	2020 23.12 2019 23 2018 23.1 2017 22.08 2016 22.3 2015 22.2 2014 21.7	Upward Trend	
Students/Graduates will demonstrate written communication skills.	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 22.94	2020 22.94 2019 21.8 2018 23.4 2017 22.08 2016 22.4 2015 21.9 2014 21.3	Upward Trend	
	Semester Evaluation (Patient History 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 89%.	2020 89% 2019 89% 2018 89% 2017 90% 2016 91% 2015 90% 2014 88%	Stable Trend	

Action/Analysis: 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 model professionalism.							
Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Actual Outcome	Trends	Action Taken
Student/Graduates will exhibit professional ethical standards.	Problem Solving /Decision Making Rubric	Students receive a minimum competency score of 41.6 pts out of possible 52 pts.	RAD 2201	Clinical Coordinator	The class average was a 96%.	2020 50.3 2019 14.3 2018 15.1 2017 15.25 2016 15.5 2015 15.5 2014 14.4	Rubric updated. Higher point value assigned. Stable trend.
Students/Graduates will summarize their professional obligations upon gaining their ARRT.	Semester 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 92%.	2020 92% 2019 90% 2018 90% 2017 91% 2016 91% 2015 91% 2014 90%	Upward trend
	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)	Program Director	The class average for RAD 1200 was 96%. The class average for RAD 2201 was 96%.	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	Rubric updated. Higher point value assigned. Stable trend.

Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results	Trends
Graduates will be satisfied with their education.	Graduate Survey Question 17 & 18	Survey results will indicate an average ≥ 3.2 on a scale of 0-4.	Last week of classes	Program Director	2020 3.94% 2019 3.94% 2018: 3.94% 2017 : 90 %- 3.45% 2016:99.25%-3.97% 2015: 3.46% 2014: 93.3%- 3.41% 2013: 100% 2012: 100%	Benchmark met. Continue to monitor.
Employers will be satisfied with the performance of newly hired technologists	Employer Survey	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	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	Benchmark met. Continue to monitor.

Action/Analysis:

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%.