

Radiologic Technology Program Analysis Summary

Marion Technical College

July 2017 – June 2018

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 80%	2 nd term 5 th term	Program Director	The class average for RAD 1200 was 72% The class average for RAD 2201 was 74% HESI FINAL	2018 74% 2017 82% 2016 82.5% 2015 76% 2014 79% 2013 74% 2012 85% 2011 78.27%	Downward Trend Action plan will be developed and implemented.
	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 86%. The class average for RAD 2201 was 87%.	2018 87% 2017 88% 2016 90% 2015 90% 2014 87% Stable trend.	Outcomes were very similar to previous years and the benchmark was met. Will continue to monitor Additional lab time for students who struggle.
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 80%	RAD 1200 2 nd term 72% RAD 2201 5 th term 69%	Program Director	The class average for RAD 1200 The class average for RAD 2201 was 69% HESI FINAL	2018 69% 2017 64% 2016 76% 2015 76% 2014 74% 2013 75% 2012 81.93% 2011 83.63%	Upward trend but still not meeting benchmark. Comprehensive Test Reviews are held during student meeting. Action plan will be developed and implemented.

	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 86%. The class average for RAD 2201 was 87%.	2018 87% 2017 88% 2016 89% 2015 89% 2014 88% Stable Trend	Outcomes were very similar to previous years and the benchmark was met. Will continue to monitor. Students compose their own technique chart.
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 87%. The class average for RAD 2201 was 89%.	2018 89% 2017 90% 2016 91% 2015 90% 2014 87% Stable trend.	Outcomes were very similar to previous years and the benchmark was met. Will continue to monitor. Students do an urgent care rotation to improve patient care skills.
	Comprehensive Test (Patient Care Section)	Minimum comprehensive score of 80%	RAD 1200 2 nd semester RAD 2201 5 th semester	Program Director	The class average for RAD 1200 was 63% The class average for RAD 2201 was 78% HESI FINAL	2018 78% 2017 88% 2016 91% 2015 85% 2014 90% Upward trend from 2015 due to implementation of additional resources.	Downward trend. Action plan will be developed and implemented.

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.

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 86%. The class average for RAD 2201 was 88%.	2018 88% 2017 90% 2016 90% 2015 90% 2014 89% Stable trend.	Outcomes were very similar to previous years and the benchmark was met. A critical thinking class is held at least once a semester. Survey was sent out to CI for ideas on how to improve. Action Plan will be implemented.	
	College Graduate Competency-Critical Thinking	Students receive a minimum competency score of 12.8 pts out of possible 16 pts.	RAD 2201 (5 th semester)	Program Director	The class average for RAD 2201 was	2018 15.1 2017 15.25 2016 15.5 2015 15.5 2014 14.4 2013 15.3 2011 13.21 Upward trend	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 88%. The class average for RAD 2201 was 88%.	2018 88% 2017 89% 2016 90% 2015 87% 2014 89% Stable trend.	Outcomes were very similar to previous years and the benchmark was met. IA classes are held every semester and are tested during lab sessions.	
	Clinical Test Scores	Students achieve a minimum clinical test grade of 80% or above	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 84%.	2018 84% 2017 82% 2016 84% 2015 82% 2014 83% Stable trend.	Outcomes were very similar to previous years and the benchmark was met. If students didn't receive an 80% the test was reviewed and students corrected test.	

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	2018 3.43 2017 2.38 2016 3.9 2015 4.0 2014 3.2 2013 3.8 2012 3.88 2011 4.0 Upward trend	Upward trend. We believe decline was due to class personalities. Action plan was developed and will be implemented.
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 89%. The class average for RAD 2201 was 89%.	2018 89% 2017 89% 2016 90% 2015 89% 2014 90% Stable trend..	Outcomes were very similar to previous years and the benchmark was met. Students have to pass multiple labs were they provide accommodations for the patient.
	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.		Students utilizing Shaderware software and open lab sessions are available. If a student doesn't pass the lab on their 2nd attempt their must compose a paper on how they will improve.

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.

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 90%. The class average for RAD 2201 was 90%.	2018 90% 2017 91% 2016 92% 2015 93% 2014 91% Slight downward trend.	Outcomes were very similar to previous years and the benchmark was met.	
	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 23.1	2018 23.1 2017 22.08 2016 22.3 2015 22.2 2014 21.7 Upward trend.	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 23.4	2018 23.4 2017 22.08 2016 22.4 2015 21.9 2014 21.3 Upward Trend	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 89%. The class average for RAD 2201 was 89%.	2018 89% 2017 90% 2016 91% 2015 90% 2014 88% Stable trend.	Outcomes were very similar to previous years and the benchmark was met. Students do an urgent care rotation to improve patient history taking skills.	

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.

Goal #4: Students will grow and develop professionally.							
Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Actual Outcome	Trends	Action Taken
Student/Graduates will exhibit professional ethical standards.	Ethics Final Exam	The student will average an 80 %	RAD 1010	Course Instructor	The class average was a	2018 2017 90% 2016 94% 2015 88.6% 2014 80% 2013 83% 2012 80 % 2011 80% Upward 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 89%. The class average for RAD 2201 was 90%.	2018 90% 2017 91% 2016 91% 2015 91% 2014 90% Stable trend.	Outcomes were very similar to previous years and the benchmark was met. Professionalism is covered in clinical orientation and assessed spring semester.
	College Graduate Competency- Professionalism	Students receive a minimum competency score of 12.8 pts out of possible 16 pts.	RAD 1200 (2 nd semester) RAD 2201 (5 th semester)	Program Director	The class average for RAD 1200 was 15 The class average for RAD 2201 was 15.1	2018 15.1 2017 15.25 2016 15.5 2015 15.75 2014 14.7 2012 16.4 2011 14.92	Not much change from 2017. Students continue to improve on critical thinking scenarios as they progress thru the program.

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	2018: 3.94% 2017 : 90 %- 3.45% 2016:99.25%-3.97% 2015: 3.46% 2014: 93.3%- 3.41% 2013: 100% 2012: 100%	Upward Trend
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	2018: 3.524 2017: 2.62 2016: 3.902 2015: 3.82 2014: 3.2 2013: 3.975 2012: 3.923	Upward Trend. 2017 due to difficult personalities of graduating class.

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..

PROGRAM EFFECTIVENESS

Five-year average credentialing examination (American Registry of Radiologic Technologists Radiography exam) pass rate of not less than 75 percent at first attempt within 6 months of graduation.

Year	Percent Passing of 1 st Attempt	Number of Students
2014	80%	12 of 15 students passed on 1 st attempt
2015	67%	11 of 15 students passed on 1 st attempt
2016	82%	17 of 19 students passed on 1 st attempt
2017	83%	10 of the 12 students passed on 1 st attempt
2018	82%	14 of the 17 students passed on the 1 st attempt
5 Year Average		

Five-year average job placement rate of not less than 75 percent within twelve months of graduation.

Year	Percent Job Placement	Number of Students
2014	93%	14 of 15 students obtained employment per verbal conversation
2015	100%	11 of 11 obtained employment per verbal conversation
2016	100%	18 students obtained employment. 1 graduate was not seeking employment at this time.
2017	100%	10 of the passing graduates obtained employment. 2 graduates have not passed registry.
2018	100%	14 of the passing graduates obtained employment. 3 graduates have not passed the registry.
5 Year Average	98.5%	

Program Completion Rate

The Program Completion Rate is defined as the number of students who complete the 2 year program. The annual bench mark is 75%.

Year	Percent Completion	Number of Students
2014	83%	18 began 15 graduated, 2 voluntary withdraw, 1 health withdraw, 1 dismissed for grades, 1 transfer
2015	80%	19 began 15 graduated 4 voluntary withdrew
2016	90%	21 began 19 graduated 2 voluntary withdrew (dismissed for grades) 1 rejoined class of 2018.
2017	75%	16 began 12 graduated 4 voluntary withdrew
2018	100%	19 began 17 graduated 2 dismissed for grades both rejoined class of 2019.
5 Year Average	85.7%	