

Southern Illinois University Carbondale  
College of Health and Human Sciences  
School of Health Sciences  
Magnetic Resonance Imaging and Computed Tomography Program  
Assessment Plan  
Fall Analysis and Actions  
Based on 2023/2024 MRI/CT Class-14 Students

MISSION: The mission of the Magnetic Resonance Imaging and Computed Tomography Program at Southern Illinois University Carbondale is to provide a quality program integrating education, research, and service in order to meet the needs of the profession and improve health care to the communities we serve.

GOAL #1: Prepare the student to practice as an entry level professional MRI and CT technologist by offering a balanced curriculum with quality didactic and clinical instruction.

Outcomes	Assessment Method	Assessment Tool	Benchmark	Time Frame for Evaluation	Person Responsible	Analysis	Action
1. Graduates indicate overall satisfaction with the education from the program.	Graduates will be surveyed at the end of the Fall semester and approximately 12 months following graduation.	End of Fall Semester Evaluation End of Program Evaluation	Graduates will report average score of 4.0 on a scale of 1-5 (“Excellent” or “Very Good”) on both surveys.	Fall Semester and Spring Semester Post graduation	Program Director	<b>Fall Semester</b> Question 1 1.93 Question 2a 3.79 Question 2b 3.14 Question 2c 4.50 Question 2d 4.79 Question 3 3.07 Question 4 3.07 Question 5 3.50 <b>End of Program</b> Question 1a 5.00 Question 1b 4.93 Question 2a 5.00 Question 2b 5.00 Question 3 5.00 Question 4 4.21 Question 5a 4.86 Question 5b 4.86	Met Benchmark, No Action Necessary
2. Employer indicates graduate was adequately prepared to perform as an entry-level MRI/CT technologist with the proper skills and knowledge.	Employers will be surveyed approximately 6 and 12 months following graduation of student	Employer Survey	The returned employer surveys will reflect average score of ≥4 on a scale of 1-5 on (“Strongly Agree” or “Generally Agree”)	Spring Semester and Post-graduation	Employers and Program Director	<b>6 Month-Post Graduation</b> Question A 4.10 Question B 4.40 Question C 4.30 Question D 4.30 Question E 4.50 Question F 4.30 Question G 4.00 Question H 3.80 Question I 4.50 Question J 4.60 Question K 4.50 Question L 4.50 Question M 4.30 Question N 4.40 <b>12-Month Post Graduation</b> Question A 5.00 Question B 5.00 Question C 5.00 Question D 5.00 Question E 5.00 Question F 5.00 Question G 5.00	Met Benchmark

						Question H 5.00 Question I 5.00 Question J 5.00 Question K 5.00 Question L 5.00 Question M 5.00 Question N 5.00	
3. Graduates will pass ARRT MRI/CT certification exam on first attempt	Graduates will sit for ARRT certification exam following graduation.	Check ARRT Website	A five year average of 80% of the graduates will pass the credentialing exam on first attempt.	Fall Semester and up until 6 months Post-graduation	Program Director	12 passed CT ARRT Registry for a Pass Rate of 100%. 1 Student was CT registered starting the program. 1 student did not take the CT exam.  13 passed MRI ARRT Registry for a Pass Rate of 100%. 1 student did not take the MRI exam.	Exceeded Benchmark.  100% pass rate for both CT and MRI.
4. Employers indicate graduate demonstrates essential skills and knowledge necessary to work effectively with other health care professionals.	Employers will be surveyed approximately 6 and 12 months following graduation of the student.	Employer Survey	The returned employer surveys will reflect average score of ≥4 on a scale of 1-5 on (“Strongly Agree” or “Generally Agree	Spring and Fall Semesters	Program Director	<b>6 Month-Post Graduation</b> Question A 4.10 Question B 4.40 Question C 4.30 Question D 4.30 Question E 4.50 Question F 4.30 Question G 4.00 Question H 3.80 Question I 4.50 Question J 4.60 Question K 4.50 Question L 4.50 Question M 4.30 Question N 4.40  <b>12-Month Post Graduation</b> Question A 5.00 Question B 5.00 Question C 5.00 Question D 5.00 Question E 5.00 Question F 5.00 Question G 5.00 Question H 5.00 Question I 5.00 Question J 5.00 Question K 5.00 Question L 5.00 Question M 5.00 Question N 5.00	Met Benchmark
5. Students will be clinically competent upon graduation.	Students’ clinical competencies.	Clinical Competency Check Lists  End of Clinical Rotation Evaluation	Each student will complete 100% of the suggested competencies.  Each student will rate their facility at least a 3.5 or better out of 5.	Summer Semester During program	Program Director	All ARRT Competencies had to be met in order for sign off by the program director to sit for their examinations.	Met Benchmark. No Action Necessary.

6. Clinical Coordinator/Program Director will have constant interaction with the student’s clinical instructors to make sure they are gaining proper supervision.	Email/Phone Calls/Site Visits	Feedback from the Clinical Instructors	Each student will practice MRI safety, correct positioning and set-up of the exam, proper coil selection, proper technical parameters, and professionalism to make a good technologist.	Spring and Summer Semesters	Program Director and Clinical Coordinator	Monthly emails or phone calls with the CIs and the students.  Clinical site visits or zoom during each rotation.	Met Benchmark. No Action Necessary.
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GOAL #2: Provide didactic and clinical experiences that lead to research in educational, professional, or health care issues relating to magnetic resonance imaging and computed tomography.

Outcomes	Assessment Method	Assessment Tool	Benchmark	Time Frame for Evaluation	Person Responsible	Analysis	Action
1. Students demonstrate essential skills to plan and execute research on a research paper and a case study.	Students will be evaluated on two research assignments.	Grades on the required research projects while at clinical rotations.	Students will achieve an average score of 85% on assignments.	Spring and Summer Semester During program	Program Director	Research paper and Case study were returned for corrections until an 85% was achieved.	Met Benchmark. No Action Necessary.
2. Students will continue studying for the ARRT MRI exam through a variety of homework.	Homework Assignments	ARRT Content Specifications Mock Board Registries Weekly Review Questions Homework Assignments about the equipment they work on.	Students will receive an “A” in RAD 404, RAD 414, RAD 424, and RAD 434.	Spring and Summer Semesters	Program Director	ARRT Content specifications all were completed. Mock Board registries were completed. Weekly Review Questions were completed. Homework assignments were completed. Must receive a 77% or higher to move forward in the Program.	Met Benchmark. It was a requirement to correct missed answers on the mock tests to achieve a 100%.

GOAL #3: Provide avenues to students for professional development and growth within the profession.

Outcomes	Assessment Method	Assessment Tool	Benchmark	Time Frame for Evaluation	Person Responsible	Analysis	Action
1. Students will gain a strong understanding of the professional requirements within the MRI field.	Student will write a professionalism paper.	Completion of paper.	100% of students will proficiently complete this assignment.	Summer Semester	Program Director	All professionalism papers were submitted.	Met Benchmark. No Action Necessary.
2. Graduates will participate in CE activities for their certifications.	Graduates will be surveyed approximately 6 and 12 months post-graduation.	Graduate Surveys	25% of the graduates will start earning CE credits.	Spring and Fall Semesters Post-Graduation	Program Director	Question 12 on the graduate survey. Have you begun participating in CE for your certifications, (Yes or No). -No 5 -Yes 6	No Action Necessary

Goal #4: Provide avenues for students to develop and apply skills in effective communication, analytical and critical thinking and problem solving necessary for successful MRI and CT Practice.

Outcomes	Assessment Method	Assessment Tool	Benchmark	Time Frame for Evaluation	Person Responsible	Analysis	Action
1. Students demonstrate effective communication skills.	Clinical Performance Evaluations are done during their clinical rotations	Final Clinical Performance Evaluation.	Students will achieve an 80% or higher 60/75 on last Clinical Performance Evaluation.	Spring and Summer Semester During program	Program Director	All students achieved an 80% or higher.	Met Benchmark. No Action Necessary.

2. Graduates demonstrate effective communication skills.	Employers will be surveyed approximately 6 and 12 months post-graduation.	Employer Survey	The returned employer survey will reflect average score $\geq 4$ on a scale of 1-5 on (“Strongly Agree” or “Generally Agree)	Spring and Fall Semesters	Program Director	<b>6 Month-Post Graduation</b> Question A 4.10 Question B 4.40 Question C 4.30 Question D 4.30 Question E 4.50 Question F 4.30 Question G 4.00 Question H 3.80 Question I 4.50 Question J 4.60 Question K 4.50 Question L 4.50 Question M 4.30 Question N 4.40  <b>12-Month Post Graduation</b> Question A 5.00 Question B 5.00 Question C 5.00 Question D 5.00 Question E 5.00 Question F 5.00 Question G 5.00 Question H 5.00 Question I 5.00 Question J 5.00 Question K 5.00 Question L 5.00 Question M 5.00 Question N 5.00	Exceeded Benchmark
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Goal #5: Provides avenues for students to develop and apply skills in critical thinking and problem solving necessary for successful MRI and CT Practice.

Outcomes	Assessment Method	Assessment Tool	Benchmark	Time Frame for Evaluation	Person Responsible	Analysis	Action
1. Students demonstrate effective problem solving and critical thinking skills.	For all Fall semester courses a Comprehensive final exam must be completed to move on to the spring semester.	Final Exam in RAD 364, 374, 384, and 394.	Students will achieve an average score of $\geq 80\%$ out of 100%.	Fall Semester	Program Director and Clinical Instructors	<b>OVERALL GRADE</b> RAD 364-92.4% RAD 374-99.1% RAD 384-89.2% RAD 394-94.2%	Met Benchmark. No Action Necessary.
2. Graduates demonstrate effective problem solving and critical thinking skills.	Employers will be surveyed approximately 6 and 12 months post-graduation.	Employer Survey	The returned employer survey will reflect average score $\geq 4$ on a scale of 1-5 on (“Strongly Agree” or “Generally Agree)	Spring and Fall Semesters	Program Director	<b>6 Month-Post Graduation</b> Question A 4.10 Question B 4.40 Question C 4.30 Question D 4.30 Question E 4.50 Question F 4.30 Question G 4.00 Question H 3.80 Question I 4.50 Question J 4.60 Question K 4.50 Question L 4.50 Question M 4.30	Met Benchmark

						Question N 4.40  12-Month Post Graduation Question A 5.00 Question B 5.00 Question C 5.00 Question D 5.00 Question E 5.00 Question F 5.00 Question G 5.00 Question H 5.00 Question I 5.00 Question J 5.00 Question K 5.00 Question L 5.00 Question M 5.00 Question N 5.00	
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Goal #6: Provide a clinical and didactic environment, which leads to the development of clinical skills and competence appropriate to an entry level magnetic resonance imaging and computed tomography technologist.

Outcomes	Assessment Method	Assessment Tool	Benchmark	Time Frame for Evaluation	Person Responsible	Analysis	Action
1. Students will be clinically competent upon graduation	Students’ clinical competencies	Clinical Competency Evaluations	Each students will complete 100% of the suggested competencies	Spring and Summer Semester During program	Program Director	All ARRT Competencies had to be met in order for sign off by the program director to sit for their examinations.	Met Benchmark. No Action Necessary.
2. Students demonstrate continual improvement of skills as they progress through the program.	Clinical Performance Evaluations are completed after each clinical rotation	Monitored 5 times during Spring and Summer semesters.	Students are evaluated as either “Acceptable” or Unacceptable” during clinical site visit.	Spring and Summer During the Program	Program Director	All students averaged an 80% or higher.	Met Benchmark. No Action Necessary.
3. Students demonstrate professional development and growth as a result of didactic and clinical experiences.	Clinical Performance Evaluations are completed during each clinical rotation.	Monitored 5 times during Spring and Summer.	Students will achieve an average score of ≥4 on a scale 0-5. “Acceptable” or Unacceptable”	Spring and Summer During the Program	Program Director	All students averaged an 80% or higher.	Met Benchmark. No Action Necessary.
4. Students are satisfied with their clinical site internships.	End of Clinical Rotation Evaluations are completed after the students clinical rotation.	End of Clinical Rotation Evaluation	Facilities will achieve an average score of ≥4 on a scale 0-5. “Acceptable” or Unacceptable”	Spring and Summer Semesters	Program Director	<b>MHC</b> Question 1 5.0 Question 2a 5.0 Question 2b 5.0 Question 3 5.0 Question 4 3.5 Question 5 5.0  <b>Barnes</b> Question 1 5.0 Question 2a 5.0 Question 2b 5.0 Question 3 4.5 Question 4 3.5 Question 5 5.0  <b>Carle</b> Question 1 5.0 Question 2a 5.0 Question 2b 5.0	Met Benchmark. No Action Necessary.

						<div>Question 35.0</div> <div>Question 45.0</div> <div>Question 55.0</div> <div>St. Joe's</div> <div>Question 15.0</div> <div>Question 25.0</div> <div>Question 35.0</div> <div>Question 40.00</div> <div>Question 55.0</div> <div>Heartland Imaging</div> <div>Question 14.5</div> <div>Question 2a5.0</div> <div>Question 2b5.0</div> <div>Question 34.5</div> <div>Question 42.5</div> <div>Question 54.5</div> <div>Herrin</div> <div>Question 14.75</div> <div>Question 2a5.0</div> <div>Question 2b5.0</div> <div>Question 34.75</div> <div>Question 42.5</div> <div>Question 54.75</div> <div>Baptist</div> <div>Question 15.0</div> <div>Question 2a5.0</div> <div>Question 2b4.5</div> <div>Question 34.75</div> <div>Question 41.25</div> <div>Question 54.75</div> <div>Mercy</div> <div>Question 15.0</div> <div>Question 2a5.0</div> <div>Question 2b5.0</div> <div>Question 35.0</div> <div>Question 45.0</div> <div>Question 55.0</div> <div>St. Francis</div> <div>Question 15.0</div> <div>Question 2a5.0</div> <div>Question 2b5.0</div> <div>Question 35.0</div> <div>Question 43.5</div> <div>Question 55.0</div> <div>Sarah Bush Lincoln</div> <div>Question 15.0</div> <div>Question 2a5.0</div> <div>Question 2b5.0</div> <div>Question 35.0</div> <div>Question 44.5</div> <div>Question 55.0</div>	
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						<b>OSF</b> Question 1      5.0 Question 2a     3.0 Question 2b     5.0 Question 3       4.5 Question 4       3.5 Question 5       4.0	
5. Employer indicates graduate was adequately prepared to perform as an entry-level MRI and/or CT technologist	Employers will be surveyed approximately 6 and 12 months following graduation of student.	Employer Survey	The returned employer surveys will reflect average score of $\geq 4$ on a scale of 1-5 on (“Strongly Agree” or “Generally Agree”) response to item #IIH.	Spring and Fall Semesters Post-graduation	Program Director	<b>6 Month-Post Graduation</b> Question A      4.10 Question B      4.40 Question C      4.30 Question D      4.30 Question E      4.50 Question F      4.30 Question G      4.00 Question H      3.80 Question I      4.50 Question J      4.60 Question K      4.50 Question L      4.50 Question M      4.30 Question N      4.40  12-Month Post Graduation Question A      5.00 Question B      5.00 Question C      5.00 Question D      5.00 Question E      5.00 Question F      5.00 Question G      5.00 Question H      5.00 Question I      5.00 Question J      5.00 Question K      5.00 Question L      5.00 Question M      5.00 Question N      5.00	Met Benchmark

PROGRAM EFFECTIVENESS OUTCOMES

Outcomes	Assessment Method	Assessment Tool	Benchmark	Time Frame for Evaluation	Person Responsible	Analysis	Action
1. Graduates will pass ARRT either the MRI or CT certification exam on first attempt.	Check the ARRT Educator Website	ARRT Website	A five year average of 80% of the graduates will pass the credentialing exam on first attempt	Fall Semester and up to 6 months Post-graduation	Program Director	<b>MRI PASS RATES</b> <b>FIVE YEAR AVERAGE</b> 2020-100% 2021-100% 2022-100% 2023-100% 2024-100% <b>Averages a 100%.</b>	Met Benchmark

						<b>CT PASS RATES FIVE YEAR AVERAGE</b> 2020-93% 2021-100% 2022-92% 2023-100% 2024-100% <b>Averages a 97%</b>	
2. Graduates will have employment within the MRI and/or CT profession post-graduation.	Students will complete the employment survey during finals review week Spring semester and complete the graduate survey 6 and 12 months post-graduation.	Graduate Survey	80% of the graduates will have employment within six months post-graduation. Five year average.	Approximately 6 and 12 months post-graduation Spring Semester	Program Director	<b>Question 5:</b> -Yes and -No Yes 11 No 0	Met Benchmark. No Action Necessary.
3. Students who start the program will complete the program.	Program completion rates	Program Completion Rate/Student Retention Rate.	80% of the students starting the program will graduate from the program.	Summer Semester During program	Program Director	I started with 14 students, and all 14 graduated. 100% retention.	Met Benchmark. No Action Necessary.
4. Graduates will evaluate the program positively.	Students will complete the graduate survey.	Graduate survey. Six Month And Twelve Month	The returned graduate surveys will reflect average score of $\geq 4$ on a scale of 1-5 on (“exceptional” or “adequate”) response on item #11.	Spring Semester Post-graduation	Program Director	<b>Six Month Survey:</b> <b>Question 1 Response:</b> <ul style="list-style-type: none"><li>• Contrast exams</li><li>• Anatomy</li><li>• Clinical Rotations</li><li>• Scan Ranges</li></ul> <b>Question 2 Response:</b> <ul style="list-style-type: none"><li>• Cardiac exams</li><li>• MRI Safety</li><li>• Blood Circulation</li><li>• General Nursing Info</li></ul> <b>Question 3 Response:</b> <ul style="list-style-type: none"><li>• Dosage</li><li>• Extra Lab Time</li><li>• More communication with clinical sites</li><li>• Training scanners in lab</li></ul> <b>Question 4 Response:</b> <ul style="list-style-type: none"><li>• Pathology</li><li>• Professors</li><li>• Sectional Anatomy</li><li>• Leadership</li><li>• Patient Care</li></ul> <b>Question 5 Response:</b> <ul style="list-style-type: none"><li>• Yes-11</li><li>• No-0</li></ul> <b>Question 6 Response:</b> <ul style="list-style-type: none"><li>• CT- Yes 11 No 0</li><li>• MRI- Yes 11 and No 0</li></ul>	Met Benchmark Switched to Survey Monkey



						<p><b>Question 7 Response:</b></p> <ul style="list-style-type: none"><li>• Yes,11 No 0</li></ul> <p><b>Question 8 Response:</b></p> <ul style="list-style-type: none"><li>• Yes 11 No 0</li></ul> <p><b>Question 9 Response:</b></p> <ul style="list-style-type: none"><li>• 5 Strongly Agree</li><li>• 5 Agree</li><li>• 1 Neutral</li></ul> <p><b>Question 10 Response:</b></p> <ul style="list-style-type: none"><li>• 6 Strongly Agree</li><li>• 4 Agree</li><li>• 1 Neutral</li></ul> <p><b>Question 11 Response:</b></p> <ul style="list-style-type: none"><li>• 5 Strongly Agree</li><li>• 6 Agree</li></ul> <p><b>Question 12 Response:</b></p> <ul style="list-style-type: none"><li>• 6 Strongly Agree</li><li>• 5 Agree</li></ul> <p><b>Question 13 Response:</b></p> <ul style="list-style-type: none"><li>• Yes-5</li><li>• No-6</li></ul> <p><b>Question 14 Response:</b></p> <ul style="list-style-type: none"><li>• Yes-11</li><li>• No-0</li></ul> <p><b>Question 15 Responses:</b></p> <ul style="list-style-type: none"><li>• 6 Excellent</li><li>• 5 Very Good</li></ul> <p><b>12 Month Survey</b></p> <p><b>Question 1 Response:</b></p> <ul style="list-style-type: none"><li>• Basic Scanning</li><li>• Anatomy</li><li>• Timing protocols</li></ul> <p><b>Question 2 Response:</b></p> <ul style="list-style-type: none"><li>• Cardiac exams</li><li>• MRI Safety</li><li>• IV and lab simulations/venipuncture</li></ul> <p><b>Question 3 Response:</b></p> <ul style="list-style-type: none"><li>• Implants</li><li>• Lab Time</li><li>• Training scanners switching back and forth with modalities</li></ul> <p><b>Question 4 Response:</b></p> <ul style="list-style-type: none"><li>• Pathology</li><li>• Professors</li><li>• Sectional Anatomy</li><li>• Board Prep</li><li>• Physics</li></ul> <p><b>Question 5 Response:</b></p> <ul style="list-style-type: none"><li>• Yes-7</li><li>• No-0</li></ul> <p><b>Question 6 Response:</b></p> <ul style="list-style-type: none"><li>• CT- Yes 7 No 0</li><li>• MRI- Yes 7 and No 0</li></ul> <p><b>Question 7 Response:</b></p> <ul style="list-style-type: none"><li>• Yes 7 No 0</li></ul>	
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						<b>Question 8 Response:</b> <ul style="list-style-type: none"><li>• Yes 6, Unsure 1</li></ul> <b>Question 9 Response:</b> <ul style="list-style-type: none"><li>• 4 Strongly Agree</li><li>• 3 Agree</li></ul> <b>Question 10 Response:</b> <ul style="list-style-type: none"><li>• 3 Strongly Agree</li><li>• 4 Agree</li></ul> <b>Question 11 Response:</b> <ul style="list-style-type: none"><li>• 3 Strongly Agree</li><li>• 3 Agree</li><li>• 1 Neutral</li></ul> <b>Question 12 Response:</b> <ul style="list-style-type: none"><li>• 6 Strongly Agree</li><li>• 1 Agree</li></ul> <b>Question 13 Response:</b> <ul style="list-style-type: none"><li>• Yes-6</li><li>• No-1</li></ul> <b>Question 14 Response:</b> <ul style="list-style-type: none"><li>• Yes-7</li><li>• No-0</li></ul> <b>Question 15 Responses:</b> <ul style="list-style-type: none"><li>• 6 Excellent</li><li>• 1 Very Good</li></ul>	
5. Employers will evaluate the program positively	Employers will complete the Employer Survey	Employer survey.	The returned employer surveys will reflect average score of $\geq 4$ on a scale of 1-5 on (“Excellent” or “Very Good”) response to item #IV.	Spring Semester Post-graduation	Program Director	<p>The overall quality of this program’s graduates-Question N on the Employer Survey.</p> <p>The overall quality of the program’s graduate-4.40</p>	Met Benchmark