



ACMH Hospital School of Radiologic Technology

Mission Statement

Consistent with the standards of ACMH Hospital, the School of Radiologic Technology is committed to improving the health of patients through compassion and clinical care. It is the mission of the program to provide the essential knowledge and skills to become compassionate, entry-level radiographers.

Outcomes Assessment Plan Comprehensive Assessment – Form #58

Goal 1: Students will employ clinical skills of an entry-level radiographer.						
Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results	
Students will employ proper radiation protection practices.	Clinical Simulation Evaluation (Category 5).	Average score of 2.5 or higher (3 point scale)	Fourth quarter of first year	Clinical Coordinator	2009-10: 2.95 2010-11: 2.94 2011-12: 2.96 2012-13: 2.92 2013-14: 2.92 2014-15: 2.99 2015-16: 2.96	
	Clinical Competency Evaluation (Category 6).	Average score of 1.75 or higher (2 point scale)	Fourth quarter of first year and third quarter of second year	Clinical Coordinator	4 th in 1 st	3rd in 2 nd
					2009-10: 1.97 2010-11: 1.97 2011-12: 1.94 2012-13: 1.95 2013-14: 1.96 2014-15: 1.97 2015-16: 2.0	1.83 1.88 1.99 1.96 1.96 1.79 1.79
Students will utilize appropriate positioning skills.	Clinical Simulation Evaluation (Category 2).	Average score of 1.5 or higher (2 point scale)	Fourth quarter of first year	Clinical Coordinator	2009-10: 1.95 2010-11: 1.98 2011-12: 1.96 2012-13: 1.95 2013-14: 1.93 2014-15: 1.96 2015-16: 1.91	
	Clinical Competency Evaluation (Category 4 and 11).	Average score of 2.5 or higher (3 point scale)	Fourth quarter of first year and third quarter of second year	Clinical Coordinator	4 th in 1 st	3rd in 2 nd
					Category 4 2009-10: 2.90 2010-11: 2.87 2011-12: 2.96 2012-13: 2.87 2013-14: 2.88 2014-15: 2.94 2015-16: 2.97	2.96 2.93 2.95 2.83 2.97 2.92 2.96

					<u>Category 11</u> 2009-10: 2.91 2010-11: 2.87 2011-12: 2.89 2012-13: 2.90 2013-14: 2.89 2014-15: 2.89 2015-16: 2.85	2.88 2.88 2.75 2.76 2.88 2.86 2.85
Students will select appropriate technical factors.	Performance Appraisal Evaluation for First Year Students (Category 13).	Average score of 3.25 or higher (4 point scale)	Fourth quarter of first year	Clinical Coordinator	2009-10: 3.95 2010-11: 3.74 2011-12: 3.88 2012-13: 3.58 2013-14: 3.39 2014-15: 3.55 2015-16: 3.76	
	Clinical Competency Evaluation (Category 10).	Average score of 2.5 or higher (3 point scale)	Fourth quarter of first year and third quarter of second year	Clinical Coordinator	4th in 1st 2009-10: 2.95 2010-11: 2.98 2011-12: 2.97 2012-13: 2.94 2013-14: 2.99 2014-15: 2.98 2015-16: 2.97	3rd in 2nd 2.92 2.96 2.89 2.97 2.99 2.90 2.94

Action/Analysis:

Student Learning Outcome 1 - Students will employ proper radiation protection practices.

Measurement Tool 1 –

Benchmark is met. The scores of this measurement tool are still consistent, with the current score of 2.96. Category 5 on the clinical simulation form assesses the radiation protection practices of shielding, collimation of the x-ray beam, and inquiring about the chance of pregnancy, when applicable. These criteria are introduced early on in the classroom setting and reinforced during the Orientation to Radiography class, as well as during the clinical instruction of the individual radiography exams. This tool is continually evaluated during each student's education by way of clinical simulation and competency evaluations, as well as performance appraisal evaluations.

Measurement Tool 2 –

Benchmark is met. The scores from category 6 on the clinical competency forms were perfect during the 4th quarter of the first year and the same as last year for the 3rd quarter of the second year. Upon review of the competency forms for the exams done during the 3rd quarter of the second year, it seemed like many point deductions were removed during phantom work due to failure of the student to collimate. One explanation may be that the students are conscious of the fact that the phantom cannot be harmed by the larger field of view and/or excess technical factors that may have been applied. They would rather lose points and pass the competency than to collimate a structure off, requiring the student to redo this competency again at a later date.

Student Learning Outcome 2 – Students will utilize appropriate positioning skills.

Measurement Tool 1 –

Benchmark is met. The scores from category 2 of the clinical simulations during the 4th quarter of the 1st year were consistently well above the benchmark at 1.91. Students are continuing to ensure their readiness before attempting to simulate on exams in the clinical area.

Measurement Tool 2 –

Benchmark is met. The scores from categories 4 and 11 from the clinical competency forms were measured both in the 4th quarter of the 1st year and the 3rd quarter of the second year. Scores were well above the benchmark and were consistent with previous years. Positioning skills are something that is continually built upon with repetition, and students are consistently demonstrating that they are getting the necessary level of experience with exams that they attempted during these quarters.

Student Learning Outcome 3 - Students will select appropriate technical factors.

Measurement Tool 1 –

Benchmark is met. The scores from category 13 of the performance appraisals of the first year students during the 4th quarter continued to increase by 0.21 compared to the previous year's average. This group of students expressed how beneficial their clinical experience at Armstrong Orthopedic Associates had been in this area since the technologist at this site rarely uses automatic exposure controls and instead sets up her technical factors manually. Students get a feel for how to adapt their techniques for the atypical patient.

Measurement Tool 2 –

Benchmark is met. The scores from category 10 of the clinical competency evaluations were evaluated in the 4th quarter of the 1st year and the 3rd quarter of the 2nd year, and were consistently well above the benchmarks. With the continual technological advancements with digital imaging, newer equipment models are utilizing software that allows more organ programs to be set up more precisely according to patient age, which results in fewer repeats due to gross miscalculation of the estimated technical requirements of particular projections. This seems to require less memorization of technical factors by the technologists and well as the students. This will continue to be heavily scrutinized to see if this has a positive or negative impact long term for the radiology field.

Goal 2: Students will apply effective communication skills.						
Outcomes	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results	
Students will illustrate proper written communication.	Performance Appraisal Evaluation for First Year Students (Category 11). Category 4 for Second Year students.	Average score of 3.5 or higher (4 point scale)	Third quarter of first year and third quarter of second year	Clinical Coordinator	4 th of 1 st	* time frames changed in 2012-13 plan
					2009-10: 4 2010-11: 3.99 2011-12: 4	
					3 rd in 1 st (11)	3 rd in 2 nd (4)
					*2012-13: 3.86 2013-14: 3.64 2014-15: 3.75 2015-16: 3.90	4 4 4 3.96

	Urinary System Writing Assignment Grading Rubric	Average score of 25 points or higher (30 points possible)	First quarter of second year	Course Instructor for Urinary System course	2009-10: 26.75 2010-11: 27.14 2011-12: 27.625 2012-13: 28.071 2013-14: 26.875 2014-15: 25.625 2015-16: 26.429	
Students will demonstrate appropriate oral communication skills.	Performance Appraisal Evaluation for First Year Students (Category 4).	Average score of 3.5 or higher (4 point scale)	Third quarter of first year and third quarter of second year	Clinical Coordinator	3rd in 1st	* time frames changed in 2012-13 plan
					2009-10: 3.87 2010-11: 3.86 2011-12: 3.88	
					3rd in 1st	3rd in 2nd
					*2012-13: 3.74 2013-14: 3.68 2014-15: 3.48 2015-16: 3.63	4 4 4 3.96
	Endocrine System course oral presentation Grading Rubric (Categories 1 – 6)	Average score of 20 points or higher (24 points possible)	* First quarter of second year	Course Instructor for Endocrine System course	2009-10: *22.375 2010-11: *22.386 2011-12: *22.875 and 22.857 2012-13: 22.125 2013-14: 21.5 2014-15: 23.125 2015-16: 23.2	
			Fourth quarter of first year (change made 2011-12)			
Students will demonstrate effective interpersonal communication skills in the clinical setting.	Clinical Competency Evaluation (Category 1).	Average score of 1.75 or higher (2 point scale)	Third quarter of first year and third quarter of second year	Clinical Coordinator	3rd of 1st	2nd of 2nd
					2009-10: 2 2010-11: 2 2011-12: 1.98	1.99 2 2
					3rd of 1st	3rd of 2nd
					2012-13: 2.0 2013-14: 1.97 2014-15: 1.95 2015-16: 2.0	1.86 2 2 1.98
	Performance Appraisal Evaluation for Second Year Students (Category 3 and 4).	Average score of 3.25 or higher (4 point scale)	Third quarter of second year	Clinical Coordinator	<u>Category 3</u> 2009-10: 4 2010-11: 3.93 2011-12: 4 2012-13: 4 2013-14: 4 2014-15: 4 2015-16: 3.94	
					<u>Category 4</u> 2009-10: 4 2010-11: 3.94 2011-12: 4 2012-13: 4 2013-14: 4 2014-15: 4 2015-16: 3.96	

Action/Analysis:

Student Learning Outcome 1 – Students will illustrate proper written communication.

Measurement Tool 1 –

Benchmark is met. The performance appraisal scores for category 11 were averaged for the 1st year students, pertaining to the ability of the students to obtain and document adequate histories for exams, and demonstrated a significant increase of 0.15 compared to last year's average. The documentation of a thorough history is one of the most important steps that technologists perform in order to aid the radiologist to diagnose the patient effectively. This is stressed from day one of the students clinical education, and the entire first year is heavily based upon the development of the knowledge of the finite details of human anatomy in order to achieve the knowledge base that is require to do this effectively. The average of category 4 of the 2nd year performance appraisals, pertaining to the ability of the student to communicate professionally with the patient, showed a minimal drop by 0.04, which is not extremely troublesome considering how well above the benchmark the value is. The program will continue to monitor for a decline in this tool in future classes.

Measurement Tool 2 –

Benchmark is met. Even though the benchmark has been met and the average score is almost a point higher than the previous year, there is still a concern in regard to the written communication skills of current day students. In today's electronic age, through the use of emails, text messages, and posts on social media, proper punctuation, grammar, sentence structure is not incorporated, but phrases, abbreviations, and symbols are used. Students are losing the skills of written communication, which they were previously taught. Very frequently students are not aware of when a term or word should have an upper or lower case first letter in the word. Students need to be intentional and try to improve with each sentence that they write. They need to take extra effort, more time, and focus on developing written communication skills. Because the computer corrects many spelling errors through spell check, there are words that are spelled correctly but not properly used that are missed with this feature. On hand written assignments, some of the top students in the class cannot correctly spell words. The course instructor struggles with ways to improve the student's written communication. It is stressed to the students that spelling can be very critical in the care of a patient. A letter difference in a word may completely change the meaning of the word. One possible solution to instill proper written communication through this assignment may be to place more of an emphasis by increasing the point value, which has the score contributing more significantly to the final score in the class. Course instructor will continue to look for ways to encourage proper written communication throughout the program.

Student Learning Outcome 2 – Students will demonstrate appropriate oral communication skills.

Measurement Tool 1 –

Benchmark is met. Performance Appraisal scores from category 4 were utilized from the 3rd quarter of the first year and the 3rd quarter of the second year. The first year score was 3.63, while the second year score was 3.96. While it makes sense that the students show drastic improvement from the first to the second year of training, due to increased familiarity of the use of medical terms, the first year score being lower and close to the benchmark of 3.5 is still concerning. The development of oral communication skills is essential in order for technologists to record detailed patient histories, and this will be continually scrutinized to see if any modifications to the evaluation process of this tool are needed in future years.

Measurement Tool 2 –

Benchmark is met. The score of 23.2 is the highest score since the onset of this current assessment plan. The oral portion of the report is scored on 6 of the 7 categories of the rubric with the seventh being a written portion, which is handed in. The scores on the oral report in endocrine system class have improved since the installation of the television/computer set up in the classroom. The students have been utilizing power point presentations with their oral report. The bullets on the power point slides are triggers for the information, which the student wants to convey to the class. The power point also enhances the oral presentation through pictures, radiographic images, and graphics.

Student Learning Outcome 3 – Students will demonstrate effective interpersonal communication skills in the clinical setting.

Measurement Tool 1 –

Benchmark is met. First year students are evaluated on interpersonal communication skills during the 3rd quarter by way of category 1 of clinical competency forms. The first year students scored a perfect score of 2. The second year students are evaluated via clinical competency forms in the same manner during the 3rd quarter and scored a 1.98, well above the expected benchmark. During clinical competency, students are demonstrating that they express compassion and communicate effective instructions to the patient in order to perform the exams adequately.

Measurement Tool 2 –

Benchmark is met. The second year students are also evaluated via categories 3 and 4 of the performance appraisal evaluations during the 3rd quarter. These scores were 3.94 and 3.96, both of which are well above the benchmark. We stress the importance for interpersonal communication skills, since proper communication between the patient and the technologist is vital for the patient to understand what is expected of them during imaging procedures. The patient needs to feel that their care is the most important. Technologists also have to be able to relay information to other parties, including the radiologists and ordering physicians in an effective manner.

Goal 3: Students will demonstrate critical thinking and problem-solving skills.						
Outcomes	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results	
Students will modify routines to image a non-routine patient.	Clinical Competency Evaluation (Category 4, 5, and 10).	Average score of 2.5 or higher (3 point scale).	First and third quarters of second year	Clinical Coordinator	1 st of 2 nd	3 rd of 2 nd
					Category 4	
					2009-10: 2.92	2.96
					2010-11: 2.9	2.93
					2011-12: 2.97	2.95
					2012-13: 2.98	2.89
					2013-14: 2.91	2.97
					2014-15: 2.75	2.92
					2015-16: 2.94	2.96
					Category 5	
					2009-10: 2.93	2.92
					2010-11: 2.79	2.94
					2011-12: 2.96	2.96
					2012-13: 2.95	2.99
					2013-14: 2.66	3
					2014-15: 2.96	2.94
					2015-16: 3.0	2.98

					<u>Category 10</u> 2009-10: 2.87 2010-11: 2.88 2011-12: 2.81 2012-13: 2.93 2013-14: 2.85 2014-15: 2.99 2015-16: 2.96	2.92 2.96 2.89 2.96 2.90 2.89 2.92
	Performance Appraisal Evaluation for Second Year Student (Category 12).	Average score of 3.5 or higher (4 point scale)	First and third quarters of second year	Clinical Coordinator	1st of 2nd 2009-10: 3.93 2010-11: 3.95 2011-12: 3.95 2012-13: 4.0 2013-14: 3.75 2014-15: 3.95 2015-16: 3.87	3rd of 2nd 3.93 3.91 4 4 4 3.87 3.84
Students will revise routines for the trauma patient.	Performance Appraisal Evaluation for Weekend and Evening Student (Category 20).	Average score of 3.5 or higher (4 point scale)	First and third quarter of second year	Clinical Coordinator	1st of 2nd 2009-10: 3.88 2010-11: 3.78 2011-12: 4 2012-13: 4.0 2013-14: 3.79 2014-15: 4 2015-16: 3.89	3rd of 2nd 4 3.75 3.88 4 4 3.8 3.92
	Clinical Competency Evaluation (Category 4, 5, and 10).	Average score of 2.5 or higher (3 point scale)	First and third quarters of second year	Clinical Coordinator	1st of 2nd <u>Category 4</u> 2009-10: 2.92 2010-11: 2.9 2011-12: 2.97 2012-13: 2.98 2013-14: 2.91 2014-15: 2.75 2015-16: 2.94	3rd of 2nd 2.96 2.93 2.95 2.89 2.97 2.92 2.96
					<u>Category 5</u> 2009-10: 2.93 2010-11: 2.79 2011-12: 2.96 2012-13: 2.95 2013-14: 2.66 2014-15: 2.96 2015-16: 3.0	2.92 2.94 2.96 2.99 3 2.94 2.98
					<u>Category 10</u> 2009-10: 2.87 2010-11: 2.88 2011-12: 2.81 2012-13: 2.93 2013-14: 2.85 2014-15: 2.99 2015-16: 2.96	2.92 2.96 2.86 2.96 2.90 2.89 2.92
Students will evaluate information to draw sound conclusions.	Performance Appraisal Evaluation for Weekend and Evening (Category 23).	Average score of 3.5 or higher (4 point scale)	First and third quarter of second year.	Clinical Coordinator	1st of 2nd 2009-10: 4 2010-11: 4 2011-12: 4 2012-13: 4 2013-14: 3.97 2014-15: 4 2015-16: 4	3rd of 2nd 4 3.88 4 4 4 3.80 4

	Radiation Physics course – “Production and Control of High-Voltage Regulation of Current in X-Ray Tube” chapter test. Specific test questions incorporating formulas.	Average score of 28 or higher (33 possible points)	Fourth quarter of second year (2009-10 to 2010-11) Third quarter of second year	Radiation Physics Course Instructor	2009-10: 32 2010-11: 32 2011-12: 31 2012-13: 31 2013-14: 32 2014-15: 30 2015-16: 29
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Action/Analysis:

Student Learning Outcome 1 – Students will modify routines to image a non-routine patient.

Measurement Tool 1

Benchmark is met. Second year students are evaluated by way of categories 4, 5, and 10 of the clinical competency forms during both the first and third quarters. All of the scores for these tools are remaining extremely high, which demonstrates that students are confident of their positioning skills, comfortable with equipment manipulation, and understand variances required with setting up the correct exposure factors for the exams they are performing.

Measurement Tool 2

Benchmark is met. Second year students are evaluated using category 12 of the performance appraisal evaluations that are filled out by the technologists during the 1st and 3rd quarters. Being that many of the patients we deal with day-to-day are in severe pain, many cannot be imaged utilizing routine positioning methods. The non-routine patient tests the critical thinking skills of even experienced technologists, and the students are adequately developing those skills from the technologists they work with.

Student Learning Outcome 2 – Students will revise routines for the trauma patient.

Measurement Tool 1

Benchmark is met. Categories 4, 5, and 10 during the 1st and 3rd quarters of the second year are also used as evaluation tools when determining if students are adequately learning how to modify positioning routines for trauma patients. Once again, these scores are consistently remaining well above the benchmarks. Trauma patients are often also in severe pain, which makes minimizing their amount of movement a top priority for technologists. Students are taught from early on in their education that image sequencing to minimize motion is extremely important for the ideal care of every patient, but this concept is stressed as essential when dealing with the trauma patient.

Measurement Tool 2

Benchmark is met. Category 20 from the weekend and evening performance appraisal evaluation forms are evaluated during the 1st and 3rd quarters of the second year. With scores of 3.89 and 3.92, students are demonstrating that they understand the importance of deviating from the typical tactics of radiographic positioning compared to the routine examination and that they are able to adapt quickly to still give the more difficult patients or exams the utmost compassionate care.

Student Learning Outcome 3 – Students will evaluate information to draw sound conclusions.

Measurement Tool 1

Benchmark is met. Category 23 of the weekend and evening performance appraisal evaluations are utilized as the measuring tool during the first and third quarters of the second year, pertaining to the students' abilities to critique images for radiographic quality. Both quarters, students had perfect scores of 4 in this area, which expresses their ability to note any positioning or technical factor errors on the images that were taken, and then adjust as needed to ensure that any repeat images have the highest quality possible. Common errors for the various exams are taught in the didactic area, but students pick up far more during repetitive clinical experiences.

Measurement Tool 2 –

Benchmark is met. The score of 29 is the lowest score recorded for this tool since the onset of this assessment plan. The scores continually decrease over the years except for one year of which they increased. This tool assesses drawing sound conclusions from information through performing formulas in radiation physics and finding the correct answer. The students are asked to state the formula for each problem prior to placing values in the formula. The student is to show work that is performed to find the correct answer in steps instead of just punching numbers into a calculator to find the result. The student is also asked to label the answer with the correct unit of measurement. In today's age, students rely on electronics to perform many tasks. This may be the reason for lower scores if it is difficult for the student to write out the math calculations. The reason for the extra steps in solving a problem is so the instructor can locate difficult areas when a student struggles with performing the problems. Each student has similar problems with different factors, which requires them to perform their assignments individually and not relying on comparing with fellow students. The students are given many homework assignments throughout the radiation physics course, which cover formulas. The same format is followed on homework as it is on tests. The course instructor will continue to monitor the scores for this measurement tool.

Goal 4: Students will develop a commitment to professional responsibility.					
Outcomes	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will comprehend the importance of the professional organizations.	Orientation to Radiography course - "Growing With the Profession" section test. Specific test questions on professional organizations.	Average score of 15 points or higher (20 points possible)	First quarter of first year	Orientation to Radiography Course Instructor	2009-10: 17.875 2010-11: 18.25 2011-12: 19.14 2012-13: 19.04 2013-14: 17.375 2014-15: 17.635 2015-16: 18.5
	Exit Evaluation (Category #7 and #9) Previous to 2014-15, Category #5 and #7 were utilized)	A "yes" response 98% of the time or higher for all students.	Fourth quarter of second year (final day of education)	Educational Coordinator and Clinical Coordinator	<u>Category 5</u> 2009-10: 100% 2010-11: 100% 2011-12: 100% 2012-13: 100% 2013-14: 100% <u>Category 7</u> 2014-15: 100% 2015-16: 100%

					<u>Category 7</u> 2009-10: 100% 2010-11: 100% 2011-12: 100% 2012-13: 100% 2013-14: 86% <u>Category 9</u> 2014-15: 100% 2015-16: 100%
Students will employ professional behaviors.	Performance Appraisal Evaluation for First Year Students (Category 9 and 16).	Average score of 3.5 points or higher (4 point scale).	Fourth quarter of first year	Clinical Coordinator	<u>Category 9</u> 2009-10: 4 2010-11: 4 2011-12: 4 2012-13: 3.87 2013-14: 3.81 2014-15: 3.92 2015-16: 4
					<u>Category 16</u> 2009-10: 3.98 2010-11: 3.91 2011-12: 3.97 2012-13: 3.91 2013-14: 3.82 2014-15: 3.92 2015-16: 4
	Performance Appraisal Evaluation for Second Year Students (Category 6, 15, and 16) (Category 5, 14 and 15 were used up through 2011-12).	Average score of 3.5 or higher (4 point scale)	Second quarter of second year	Clinical Coordinator	<u>Category 6</u> 2009-10: 4 2010-11: 4 2011-12: 4 2012-13: 4 2013-14: 3.92 2014-15: 4 2015-16: 4
					<u>Category 15</u> 2009-10: 4 2010-11: 3.93 2011-12: 3.97 2012-13: 4 2013-14: 3.92 2014-15: 4 2015-16: 4
					<u>Category 16</u> 2009-10: 4 2010-11: 3.96 2011-12: 4 2012-13: 4 2013-14: 4 2014-15: 4 2015-16: 4

Students will analyze the ARRT Code of Ethics.	Orientation to Radiologic Technology course- specific questions on “Ethics and Professionalism in Radiologic Technology” chapter quiz.	Average score of 7 points or higher (10 points possible)	First quarter of first year	Orientation to Radiography Course Instructor	2009-10: 9.25 2010-11: 9.875 2011-12: 9.357 2012-13: 9.875 2013-14: 9.875 2014-15: 9.6875 2015-16: 9.6875
	Performance Appraisal Evaluation for Second Year Students (Category 5).	Average score of 3.5 or higher (4 point scale)	Third quarter of second year	Clinical Coordinator	2009-10: 4 2010-11: 3.97 2011-12: 4 2012-13: 4 2013-14: 4 2014-15: 4 2015-16: 3.96

Action/Analysis:

Student Learning Outcome 1 – Students will comprehend the importance of the professional organizations.

Measurement Tool 1 –

Benchmark is met. The score for this measurement tool has increased in regard to the average for the past two assessment time frames, but remains at the midline of all scores recorded. This assessment takes place during the Orientation class. The students are introduced to professionalism, the characteristics of professionals, and the links for promoting and assisting with maintaining a professional status. The students are made aware of offerings provided for students through professional societies through postings on the classroom bulletin board or various announcements. Professional organizations are touched upon again in the month of March of the student’s second year when the ARRT Registry application and handbook is handed out. The videos provided by the ARRT on “Applying for Certification”, “What to Expect on Exam Day”, and “Exam Security” are shown to the class and the students are also provided with an ARRT handout titled, “At the Test Center”. Other ARRT videos, power points, and handouts in regard to continuing education, the Standards of Ethics, and the role of an RT are provided to the students as a class the last week of education. Course instructor may reconsider changing this measurement tool for the 2016-2017 assessment timeframe. This measurement tool is assessing a brief overview of the professional organizations at the initial onset of education and not the more in depth look at the professional societies.

Measurement Tool 2 –

Benchmark is met. On the last day of education during the student’s exit interview, multiple questions are asked in regard to professional organizations and continuing education. This evaluation takes place in the same week of classroom instructions in which the students watched the ARRT videos, “Ethics and the ARRT”, “What CQR will mean for you”, and “Understanding Continuing Education Requirements”. “Standard in Ethics in Practice” and “What Happens Next?” power points provided by the ARRT are reviewed. The students are given the ARRT handouts, “What CQR will mean for you”, “Enhancing Your Certification”, and “What RT Is... and Isn’t”. The program is happy to utilize the resources provided by the ARRT to promote professionalism. On the last day of education, the student is given a copy of the Standard of Ethics, an application to the ASRT, an individualized form showing when to begin continuing education and when the biennium ends, and other possible ways of obtaining continuing education. The program is pleased with the graduates’ responses to their understanding of the continuing education process and their intentions of becoming an ASRT member. A year following graduation, previous students are sent the Commitment To

Professional Responsibility Survey, which inquires about their status in joining the ASRT and how they receive their continuing education credits. This is another way in which the program can assess their comprehension of the professional societies one year after graduation. It may be possible to utilize the Commitment to Professional Responsibility survey as a measurement tool in place of the Tool 1 for this SLO, which is assessed early in the students' education.

Student Learning Outcome 2 – Students will employ professional behaviors.

Measurement Tool 1 –

Benchmark is met. Categories 9 and 16 are evaluated from the performance appraisal evaluations during the 4th quarter of the first year for this tool. Both categories scored a perfect score of 4 in these categories, demonstrating the students are very receptive to suggestions and corrections and they show initiative and interest in their work. As educators, we stress to the students that the technologists are critiquing the students only to make them better, not to insinuate that the student is lacking knowledge or skill in any particular area. Students can then focus on taking the criticism constructively so that the next time they are in a similar situation, they know exactly how to handle it.

Measurement Tool 2

Benchmark is met. Categories 6, 15, and 16 were utilized as tools from the performance appraisal evaluations during the 2nd quarter of the second year. These categories evaluate the student on their willingness to cooperate with fellow students, staff, and superiors, showing initiative and interest in their work, and actively participating in their assigned room. All 3 categories received perfect scores of 4. This class of students seemed to really excel during the second year.

Student Learning Outcome 3 – Students will analyze the ARRT Code of Ethics.

Measurement Tool 1 –

Benchmark is met. The score in this assessment period is the same as the previous year. The students are provided with the ARRT Code of Ethics at the spring orientation for new students. The Standard of Ethics is part of the student's Policy and Procedure Manual, which includes the Codes of Ethics and the Rules of Ethics. During Orientation to Radiography class, the Standard of Ethics is reviewed. Special attention is given to the ten Code of Ethics and what each is referring to. The students are not asked to memorize each of the codes but to be aware of their meanings. A scenario pointing out that a radiographer who follows the Code of Ethics is more than likely someone that the student would want taking care of them in the healthcare environment. It is pointed out to the students at the radiology school Open House, on the program application, at spring orientation, and during Orientation class the ethical issues that could keep a candidate from taking the ARRT Registry examination as well as removing the status of Registered Technologist from an already practicing radiographer. The Educator's Resource Toolkit from the ARRT was utilized in the Orientation class. The power point "Standards of Ethics in Practice" was shown to the class. The use of the power point did not increase the score on this measurement tool, but it was another tool to stress the importance of the Standard of Ethics and how actions may impact the education of a student in a radiology program or the career of a radiographer.

Measurement Tool 2 –

Benchmark is met. Category 5 from the second year performance appraisal evaluations were used to evaluate the students' abilities to recognize and meet the patients' needs. Students scored a consistently high score of 3.96 this year. Being that this is a vital purpose established by the ARRT Code of Ethics and an important factor of overall patient satisfaction, students are taught early on in the clinical area to always be thinking of

what the patient is going through, and to always make sure that patient care and modesty are always being fulfilled.

Goal 5: The program will assure the effectiveness of its educational offerings to the student radiographers and the communities it serves. (Class of 2015)					
Outcomes	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will pass the ARRT Registry examination on the first attempt.	ARRT Registry Results	Pass rate is greater than 85% each year JRCERT 5 year benchmark is not less than 75% on first attempt.	2 months after graduation or as the examination is taken	Educational Coordinator	2009-10: 100% 2010-11: 100% 2011-12: 100% 6/6 2012-13: 100% 8/8 2013-14: 100% 6/6 2014-15: 100% 7/7 2015-16: 86% 6/7 5 year average 2012-13: 100% 2013-14: 100% 2014-15: 100% 2015-16: 97% 33/34
For those seeking employment, students will secure employment in medical imaging within 12 months of graduation.	Graduate Survey (Question #2) and Commitment to Professional Responsibility Survey (Question #5 and #7)	Program placement rate of 75% or greater JRCERT 5 year benchmark is not less than 75%.	One month following graduation and one year following graduation	Educational Coordinator	2009-10: 100% 2010-11: 60% 2011-12: 83% 5/6 2012-13: 80% 4/5 2013-14: 100% 5/5 2014-15: 71% 5/7 2015-16: 100% 5/5 5 year average 2011-12: 90% 27/30 2012-13: 85% 24/28 2013-14: 84% 21/25 2014-15: 79% 22/28 2015-16: 86% 24/28
Students will demonstrate to employers the qualities of an entry-level technologist.	Employer Satisfaction Survey (Category 9)	Eighty percent or higher are "yes" responses (Yes/No answer)	One year following graduation	Educational Coordinator	2009-10: 100% 2010-11: 100% 2011-12: 100% 2012-13: 100% 2013-14: 100% 2014-15: 100% 2015-16: 100%
Students will evaluate their educational offerings to be effective in the development of an entry-level radiographer.	Graduate Survey (Category 2)	The average response of 2.5 or higher (3-point scale)	One months following graduation	Educational Coordinator	2009-10: 3 2010-11: 2.8 2011-12: 3 2012-13: 3 2013-14: 3 2014-15: 2.83 2015-16: 2.83

Students will complete the program within 150% of the stated program length of 24 months.	Program Effectiveness Data – Program Completion Rate	Retention rate is 80% or greater each year	Within 150% of the stated program length of 24 months – one year following graduation	Educational Coordinator	2009-10: 87.5% 2010-11: 100% 2011-12: 75% 6/8 2012-13: 100% 8/8 2013-14: 100% 7/7 2014-15: 87.5% 7/8 2015-16: 87.5% 7/8
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Action/Analysis:

Program Effectiveness 1 – Students will pass the ARRT Registry examination of the first attempt.

Benchmarks are met for both the program annual and the JRCERT's five year average, although this is the first time in over two decades that we have not had 100% pass rate. The student who did not successfully pass the ARRT Registry examination on the first attempt received the minimum score of 75% on the program's certification test. On the second attempt, the student passed the ARRT examination. The other students in this class increased their percentage scores on the Registry examination in comparison to their certification test; except for one who received the exact same score on both examinations. The average increase in percentage from the certification test to the ARRT examination was 2.8%; one student's score increased by 11%. In preparation for the ARRT examination, the students utilized an online Registry review package that posed Registry-like formatted questions with the answers and explanations. Since the onset of using this program in 2010, the students have been successful in passing the ARRT examination. The student, who did not successfully pass the ARRT Registry on the first attempt, expressed her reasoning as being "test anxiety." The program will continue to review for the certification test, as well as the ARRT examination, utilizing questions in the format presented on the ARRT Registry examination.

Program Effectiveness 2 – For those actively seeking employment, students will secure employment in medical imaging within 12 months of graduation.

Benchmarks are met for both the annual program and the five-year JRCERT standards. An additional assessment tool was added this year to document the number of students actively seeking employment who secured employment 12 months following graduation. This tool is entitled "Commitment to Professional Responsibility Survey." Of the seven graduates, there were two who were not actively seeking employment. One of the two continued her education, while the other graduate was unwilling to relocate or accept employment due to salary or hours. Therefore, five of the five graduates actively seeking employment were employed within 12 months of graduation. Several of these five have accepted more than one imaging position. So on a positive note, this class was able to secure employment with some having more than one opportunity. The percentage of 86% is a significant increase from the five year average of the previous year of 79% with 24 graduates out of 28 of those actively seeking employment obtaining an imaging position a year following graduation. The job market seems to be opening up for our graduates in the past couple years. The program continues to send out flyers in the months of April, which announces upcoming graduates, and again in September following graduation to notify potential employers that our students have graduated and the skills they have learned. These flyers contain contact information in regard to our program, which enable us to alert students of potential employment opportunities. Our program has received several phone calls this in this assessment period of possible radiographer positions for our graduates. The most recent class of graduates, as well as those that the program knows of who have not secured radiographer positions, are alerted.

Program Effectiveness 3 – Students will demonstrate to employers the qualities of an entry-level technologist.

Benchmark is met. All five of the surveys were returned. In regard to the question, “Are you satisfied with the graduate’s performance as an entry-level technologist?” four of the five employers stated “yes”. The fifth employer did not answer questions posed in the survey, but stated that the “company policy allows verification of title and dates of employment only.” Our program consistently affirms 100% in regard to this program effectiveness tool. Of the four employers completing the survey, all four confirmed that our program has met our goal of “Students will employ clinical skills of an entry-level radiographer.” We pride ourselves in the fact that the students who graduate from our program are viewed as employees who have met the program’s goals and are adapting to the positions as radiographers.

Program Effectiveness 4 – Students will evaluate their educational offerings to be effective in the development of an entry-level radiographer.

Benchmark is met. Six of the seven graduate surveys were returned. Five of the six graduates replying on the graduate survey rated the statement “The program prepared you for an entry-level job as a technologist” with the maximum score of 3. The other survey rated this statement with a “2” and indicated it would have been beneficial to have more clinical time. She felt that she was pulled out of clinical for class on many occasions. This concern will possibly be remedied in the fact that one of the instructors has adjusted her schedule to working nine days in a two week period as to the previous eight days. Additional classes will not need to be held with prior notification to the student in lieu of clinical assignments.

Program Effectiveness 5 – Students will complete the program.

Benchmark is met. Of the eight students who began the program in July of 2013, seven finished the program and graduated in June of 2015. This date is within 150% of the stated program’s length. One student voluntarily withdrew from the program in November of 2014. Since the onset of this current assessment plan, students have left the program voluntarily or for academic reasons. To increase the qualified applicant pool, the program have explored another affiliation option to boost the applicant pool for the incoming classes.

Last updated – 11/4/11, 6/14/12, 7/19/12, 7/25/13, 7/28/2014, 8/31/2015, 9/22/16

The mission statement and goals for the program were updated and revised and became effective July 1, 2009. This new assessment plan also became effective on the same date.