

College of Southern Idaho

Radiologic Technology Program Outcome Assessment Plan -- Class of 2009

**Mission: To prepare graduates for entry-level employment
as ARRT Registered Technologists in Radiography.**

Category 1: Graduate Performance

Goal 1: Program effectiveness will be measured on an ongoing basis.

Outcome	Tool	Benchmark	Time Frame	Responsibility	Result	Action
1. Enrolled students will complete the program.	CSI Commencement Ceremony Program Listing	≥ 80 % graduation rate per class.	Commencement (May)	Program Director	Yes 11/12 = 91.7	None
2. Graduates will pass the ARRT exam in radiography on the first attempt.	ARRT Radiography Examination Summary	Class mean scaled score ≥ 80 with ≥ 80 % first time pass rate.	December (when ARRT mails summary data).	Program Director	Yes 86% Mean 100% First Time Pass rate	None
3. Graduates will be employed within 6 months.	Alumni Survey Question # 11, 12.	≥ 80 % of those seeking employment in 6 months of those surveys returned..	Six months post-graduation.	Program Director	Yes 9/10 = 90%	Change outcome next year to “will be employed or continuing their education within 6 months.
4. Graduates will receive a quality education.	Alumni Survey Question # 3.	≥ 3 (average or higher) on a scale of 1 to 5 of those surveys returned.	Six months post - graduation.	Program Director	Yes 3.98	None
5. Employers will be satisfied with the performance of graduates.	Employer Survey Question #1	≥ 95 % Combined satisfactory rating of those surveys returned.	Six months post - graduation.	Program Director	Yes 4/4 = 100%	None

Category 2: Clinical Performance.						
Goal 2: Students will be clinically competent.						
Outcome	Tool	Benchmark	Time Frame	Responsibility	Result	Action
1. Students will provide appropriate patient care	A. RADT 102 Patient Care in Radiography I Unit Exams # 4 - 7.	A. ≥ 80 % Combined average score.	A. First semester	A. Didactic Instructor	A. Yes = 90.6%	A. None
	B. RADT 150 Patient Care in Radiography II Unit Exams # 11 and 12	B ≥ 80 % Combined average score	B. Second semester	B. Didactic Instructor	B. Yes = 94.2%	B. None
	C. No simulation Competency Evaluation Forms for (1) UGI Series and (2) Trauma Hip.	C. ≥ 100 % Combined satisfactory rating on the first attempt.	C. Third, Fourth or Fifth semester	C. Clinical Coordinator	C. No UGI11/13 = 84.6% T/Hip 10/10 = 100% Mean = 92.3%	C. See 11/2/08 clinical ed memo. Increase awareness among students. Add demo for each comp plus T/O/IR Alignment demo emphasis.
2. Students will demonstrate quality positioning.	A. RADT 162 Radiographic Procedures II Unit Exams # 11 - 17.	A. ≥ 80 % Combined average score.	A. Fourth semester	A. Didactic Instructor	A. Yes = 92.6 %	A. None
	B. No simulation Competency Evaluation Form for (1) Humerus and (2) Barium Enema # 5, 6, 7.	B. ≥ 100 % Combined satisfactory rating on the first attempt.	B. Third, Fourth or Fifth semester	B. Clinical Coordinator	B. Yes Hum = 9/9 = 100% BE = 7/7 = 100% Mean = 100%	B. None

<p>3. Students will apply appropriate radiation safety principles.</p>	<p>A. RADT 152 Radiation Protection Unit Exams # 7 and 8.</p> <p>B. Competency Evaluations # 3, 4, 8, for three randomly selected non-invasive radiography exams.</p>	<p>A. $\geq 80\%$ Combined average score.</p> <p>B-1. $\geq 100\%$ Combined satisfactory rating on the first attempt.</p> <p>B-2. $\geq 100\%$ Combined satisfactory rating on the first attempt.</p> <p>B-3. $\geq 100\%$ Combined satisfactory rating on the first attempt.</p>	<p>A. Second semester</p> <p>B-1 Third semester</p> <p>B-2 Fourth semester.</p> <p>B-3. Fifth semester.</p>	<p>A. Didactic Instructor</p> <p>B-1 Clinical Coordinator</p> <p>B-2 Clinical Coordinator</p> <p>B-3 Clinical Coordinator</p>	<p>A. Yes = 90.3%</p> <p>B-1 No = 91.6%</p> <p>B-2. Yes 11/11 = 100%</p> <p>B-3. Yes 11/11 = 100%</p>	<p>A. None</p> <p>B-1 Misplaced comp on student who resigned in 4th semester. Need to retain all student records throughout a given class regardless of student resignations or dismissals.</p> <p>B-2 None</p> <p>B-3. None</p>
<p>4. Students will demonstrate the ability to evaluate image quality on non-routine patients.</p>	<p>No simulation Competency Evaluations / Image Quality Assessment Section for (1) Trauma C-Spine, (2) Pediatric Chest and (3) Portable Abdomen.</p>	<p>$\geq 100\%$ Combined satisfactory rating on the first attempt.</p>	<p>Third, Fourth and Fifth semesters combined.</p>	<p>Clinical Coordinator</p>	<p>Yes TCS 5/5 = 100%</p> <p>PC = 11/11 = 100%</p> <p>PABD= 9/9 = 100%</p> <p>Mean = 100%</p>	<p>None</p>

Category 3: Problem Solving and Critical Thinking						
Goal 3: Students will possess problem solving and critical thinking skills.						
Outcome	Tool	Benchmark	Time Frame	Responsibility	Result	Action
1. Students will apply ALARA exposure techniques resulting in quality images using the least amount of radiation (High kV & Low mAs).	A. RADT 164 Imaging and Processing Unit Exams # 9, 10, 11	A. $\geq 80\%$ Combined average score.	A. Fourth Semester	A. Didactic Instructor	A. Yes 86.7%	A. None (Note: Student resigned. Did not have scores for #10, 11)
	B. Competency Evaluations # 8, 10 and Image Quality Assessment section of one randomly selected competency evaluation of each student.	B. $\geq 100\%$ Combined Satisfactory rating on the first attempt.	B. Fifth Semester	B. Clinical Coordinator	B. Yes 11/11 = 100%	B. None.
2. Students will assess the quality of radiographic images.	RADT 182 Clinical Education III # 8 Mock Exam / Section 3: Image Production and Evaluation.	≥ 7.0 Combined average section score	Fifth Semester	Clinical Coordinator	Yes 8.5	None
3. Students will adjust equipment operation and quality control factors.	RADT 182 Clinical Education III # 8 Mock Exam: Section 2: Equipment Operation and Quality Control	≥ 7.0 combined average section score.	Fifth semester	Clinical Coordinator	Yes 8.79	None

Category 4: Communication Skills						
Goal 4: Students will communicate and interact effectively with patients and staff.						
Outcomes	Tools	Benchmark	Time Frame	Responsibility	Result	Action
1. Students will engage in radiography-related discussions with patients, staff and each other.	Explanation # 1 & 2 of the competency evaluation. (Randomly selected non-invasive.)	A-1. ≥ 80 % Combined satisfactory rating.	A-1 Third semester.	A-1 Clinical Coordinator	A-1 Yes 11/11 = 100%	A-1, None
		A-2. ≥ 85 % Combined satisfactory rating.	A-2. Fourth semester.	A-2. Clinical Coordinator	A-2 Yes 11/11 = 100%	A-2, None
		A-3. ≥ 90 % Combined satisfactory rating.	A-3. Fifth semester.	A-3. Clinical Coordinator	A-3 Yes 11/11 = 100%	A-3, None
2. Students in clinical setting will exhibit good oral, written, listening communication skills.	Clinical Education Grade Determination Form B # 5.	≥ 90 % Combined satisfactory rating.	A-1 Third semester.	A-1 Clinical Coordinator	A-1 Yes 11/11=100%	A-1, None
			A-2. Fourth semester.	A-2. Clinical Coordinator	A-2 Yes 11/11=100%	A-2, None
			A-3. Fifth semester.	A-3. Clinical Coordinator	A-3 Yes 11/11=100%	A-3 None
					Mean = 100%	

3. Students in didactic setting will communicate effectively in writing.	A. Post certification report B. Post certification report .	A. ≥ 8 points combined satisfactory rating B. ≥ 8 points combined satisfactory rating	A. Third semester. B. Fourth semester.	A. Clinical Coordinator B. Clinical Coordinator.	A. No 4.75 pts B. Yes 8.7 pts	A. Lost/misplaced six reports. Need better data reporting process. Collect data from students at end of semester. Start Excel tracking. B. None Note: One student resigned.
Category 5: Professional Growth and Development						
Goal 5: Students and graduates will behave ethically.						
Outcomes	Tools	Benchmark	Tim Frame	Responsibility	Result	Action
1. Students will apply the values, ethics and compassion of a radiographer.	A. Final Grade Determination Form B. Note: For data look in 4-4-2.	A-1. ≥ 90 % Combined satisfactory rating. A-2. ≥ 90 % Combined satisfactory rating. A-3. ≥ 90 % Combined satisfactory rating.	A-1 Third semester. A-2. Fourth semester. A-3. Fifth semester.	A-1 Clinical Coordinator A-2. Clinical Coordinator A-3. Clinical Coordinator.	A-1 Yes 11/11=100% A-2 Yes 11/11=100% A-3 Yes 11/11=100%	A-1. None A-2. None A-3. None
2. Graduates will apply the values, ethics and compassion of a radiographer.	Employer's Survey # 1	≥ 95 % Combined satisfactory rating of those surveys returned.	Six months post graduation.	Program Director	Yes 4/4 = 100%	None
3. Students will develop a five year career development plan.	Five Year Career Development Plan	≥ 90 % Combined satisfactory rating.	Fifth semester	Clinical Coordinator	Yes 98.2%	None

**College of Southern Idaho
Radiologic Technology Program
Outcome Assessment Summary for the Class of 2009
July 30, 2010**

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Assessment Process

Graduate Performance (Program Effectiveness)	One of the benchmarks (1-1-3) for graduate performance for the Class of 2009 related to the goal of program effectiveness was not met. Some of our graduates are going into MRI, CT and Radiation Therapy Technology programs right after graduating. This is equally important in fulfilling the mission of our program as such education and training increases the graduates value and chances for employment. Consequently, we will be changing the outcome next year to read: Graduates will be employed or continuing their education within six months. Likewise, if a graduate elects to pursue being a housewife instead of an RT, which one from this class did, there is not much that can be done about this. Otherwise, the remaining benchmarks were met.
	Summary: Gary Lauer, Program Director and Karen Roberts, Clinical Coordinator, feel that the program is effective in preparing graduates for employment as entry level ARRT Registered Technologists in Radiography. Enrolled students are completing the program and passing the registry on the first attempt. They are employed after receiving a quality education. Employers are satisfied.
Clinical Performance	One of the benchmarks (2-2-1-C) for clinical performance related to the goal of students being clinically competent was not met. One student had 2 unsatisfactory scores related to poor positioning and Target/Object/Image Receptor Alignment. As a result, both positioning courses will include a demonstration of the procedure by the instructor after the lesson is taught. Likewise, all image analysis

	<p>concepts will continue to be reinforced as needed during class and labs. Another benchmark (2-2-3-B-1) was not met. A student resigned from the program in the fourth semester. However, by the time we conducted the outcome assessment for this Class of 2009 in the Summer Session of 2010, her file was misplaced and we couldn't recover her 3rd semester competency evaluations. Again, this brings up the need for more thorough data tracking. New process includes securing all student competency evaluations for assessment the following year, even students who resign from the program and who have officially completed semesters. Otherwise, the remaining benchmarks were met.</p>
	<p>Summary: Gary and Karen feel the program is effective in preparing students to become clinically competent as entry level radiographers. They are evidencing an understanding of professional communications, safety and transfer of patients, patient care and assessment, infection control, how to deal with acute situations and exam prep. They are demonstrating quality positioning skills for both entry level noninvasive and invasive procedures in class and in clinical education. They are applying appropriate radiation safety measures in protecting the patient, themselves and others. They are correctly evaluating images on non-routine patients.</p>
Problem Solving and Critical Thinking	<p>The benchmarks problem solving and critical thinking skills were met.</p>
	<p>Summary: Gary and Karen feel the program is effective in providing problem solving and critical thinking skills. Students learn how to set fixed and variable exposure techniques in the production of quality images. They learn how to evaluate image quality and demonstrate this understanding during competency evaluations. ALARA exposure techniques are being selected by the students and monitored by RT evaluators, clinical instructors and the program's clinical coordinator.</p>
Communication Skills	<p>One of the benchmarks (4-4-3A) for communication skills related to students communicating and interacting effectively with patients and others was not met. We believe this benchmark would have been met had not 6 post certification reports been misplaced. This indicated the need for better data reporting by collecting reports directly from students and starting an excel tracking of grades. The remaining benchmarks were met. The Grade Determination Form Part 2 was revised into Form B for better assessment of the student's employability skills regarding effective communication and interaction with patients, staff and others.</p>
	<p>Summary: Gary and Karen feel the program is effective in engaging students with patients, staff and each other. Students listen and comprehend. They communicate effectively orally and in writing.</p>

Professional Growth and Development	The benchmarks for professional growth and development related to students and graduates behaving ethically were met.
	Summary: Students and graduates are applying the values, ethics and compassion of a radiographer. They are developing a 5 year career development plan.
Program Effectiveness Measures	
Program Completion Rates	91.7% Twelve (12) students were selected for the class of 2009. During the fourth semester, one individual resigned from the program. This individual was having difficulty integrating into clinical education after a career as a dental hygienist. The program continues to meet its benchmark.
ARRT Pass Rates	100% first time pass rate for this year with an 86% mean standard score. The 5 year average is 99 % pass rate with an 86 % mean standard score. During RADT 182 Clinical Education III, the student's final semester of training, students are required to achieve the outcome of taking a series of mock registry examinations and then correcting weaknesses prior to taking the registry examination. This appears to contribute to student success on the registry. The program continues to meet its benchmark.
Employment Rates	70% employment of those seeking employment of those surveys returned. Eleven (11) surveys were sent out and 10 returned data. Of those surveys returned indicated 7 were employed. One of our graduates was enrolled in the Radiation Therapy Technologist program through Weber State University. Another of our graduates simply chose not to participate in the profession and became a full time housewife. A third graduate simply refused to complete the survey after several attempts of trying to contact her, including actually driving to where she was working as a radiographer and physically handing her the survey and requesting her to complete it. So, although we don't have a survey instrument on this individual we do know she is employed at Minidoka Memorial Hospital as an RT. Had she returned the survey instrument our benchmark would have been met at 80%. As it stands, this benchmark was not met.
Graduate Satisfaction	3.98 on a scale of 1 to 5 of those surveys returned. Nine (9) of the 10 surveys returned indicated that graduates felt they received a quality education that is almost "above average." This benchmark is met.
Employer Satisfaction	100% of the employers are satisfied with the performance of graduates. Four (4) out of 4 surveys returned indicated that 4 employers of 4 graduates are satisfied with their performance. All would consider rehiring our graduates if they left. All would hire another of our graduates. Requests for ways to improve the included having students in clinical sooner and more training in PACS and newer methods, This benchmark is met.

Assessment Plan Review	
Mission Statement	The mission statement was reviewed by Gary Lauer, Program Director and Karen Roberts, Clinical Coordinator. No issues were identified and the statement continues to be consistent with the program's offering.
Goals	The goals were reviewed by Gary and Karen and felt to be still applicable.
Assessment Plan	The following changes were made by Gary and Karen for next year's 2010 outcomes assessment plan. For outcome 1-1-3 change the outcome to read: Graduates will be employed or continuing their education within six months. Some of our graduates are going into MRI, CT and Radiation Therapy Technology programs right after graduating. This is equally important in fulfilling the mission of our program as such education and training increases the graduates value and chances for employment.
	For 2-2-1 C We're going to add a demonstration after completing the instruction for each entry level competency to improve student performance before they take to the lab for practice. Also, we will continue to reinforce image analysis (Density, Contrast, Detail, Distortion) when needed so students understand the implications when controlling factors are violated.
	For 2-2-3-B-1 Retain all files of students who are given a grade for a course, including students who have resigned from the program for more effective data tracking and reporting.
	For 4-4-3-A, misplacing 6 reports indicates we need better data tracking system. We will collect reports at the end of the semester with students being brought in and we are setting up excel spreadsheet to track grade results.
	We will set up grade report folders for each class and maintain all grades in the respective class outcomes assessment file.
	93.7% of all benchmarks (30/32 = 93.7%) were met for the Class of 2009.
	Final thoughts. This outcomes assessment activity went better than last year as we appear to have a better understanding of the process. We are realizing how important securing student records are in data tracking and reporting. Again, we have defined the Summer Session (our administration period) as the appropriate time to conduct the outcome assessment for the previous graduating class, which provides ample time and opportunity to collected and process data. Although this is Summer Session 2010 and we just graduated the Class of 2010, we just finished conducting the assessment on the previous graduating Class of 2009 this summer. Next Summer Session 2011 we will conduct the outcomes assessment for the Class of 2010.