

**College of Southern Idaho
Radiologic Technology Program
Outcome Assessment for the Class of 2008**

**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 11/13 = 84.6%	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 85% 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 6/6 = 100%	None
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 492/112 = 4.4	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 9/9 = 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 = 91.65%	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 = 92.7%	B. None
	C. 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. Yes 11/11 = 100% 11/11 = 100% Mean = 100%	C. None
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 = 92.1%	A. None
	B. 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 Hip = 11/11 = 100% BE = 11/11 = 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 = 92%</p> <p>B-1 Yes 11/11 = 100%</p> <p>B-2. Yes 11/11 = 100%</p> <p>B-3. Yes 11/11 = 100%</p>	<p>A. None</p> <p>B-1 None</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>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>Fifth semester</p>	<p>Clinical Coordinator</p>	<p>Yes TCS 9/9 = 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 89.2%	A. None
	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. No 3/11 = 27%	B. Students and clinical instructors were not insuring ALARA techniques were documented due to lack of oversight by clinical coordinator, who communicated this need to students and clinical instructors at site visits and workshops.
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 8.2	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 7.98	An Air Force transfer student (who didn't take CSI didactic courses) was included in mock exam and skewed results, even though benchmark of ≥ 7 was almost met.

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. (See 2-2-3 B, 1,2,3 for comp evaluations used)	A-1. ≥ 80 % Combined satisfactory rating.	A-1 Third semester.	A-1 Clinical Coordinator	A-1 Yes 10/11 = 90%	A-1, None Note: misplaced file on one student who was dismissed from program in fall.
		A-2. ≥ 85 % Combined satisfactory rating.	A-2. Fourth semester.	A-2. Clinical Coordinator	A-2 Yes 11/11 = 100%	A-2, None Note: Dismissed student data not used. Air Force transfer student joins class.
		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 will exhibit good listening and comprehension skills.	Clinical Education Grade Determination Form Part 2: K-2 for 3 rd and 4 th semesters) and #5 for 5 th semester.	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

3. Students will communicate effectively orally.	Clinical Education Grade Determination Form Part 2: K-4 3 rd and 4 th semester and #5 during 5 th semester.	A-1. ≥ 80 % Combined satisfactory rating. A-2. ≥ 85 % 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 10/10=100% A-3 Yes 11/11=100%	A-1, None A-2, None A-3, None Note: combine 4-4-3 and 4-4-4 into one outcome.
4. Students will communicate effectively in writing.	A. Post certification Report B. Grade Determination Form #5 C. Career Awareness Report.	A. ≥ 80 % Combined satisfactory rating (≥ 8 points). B. ≥ 80 % Combined satisfactory rating. C. ≥ 80 % Combined satisfactory rating.	A. Third semester. B. Fifth semester. C. Fifth semester.	A. Clinical Coordinator B. Clinical Coordinator. C. Clinical Coordinator.	A. Yes 11/11 =100% B. Yes 11/11=100% C. Yes 11/11=100%	A. None B. None C. None Note: combine 4-4-3 and 4-4-4 into one outcome.

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.	A-1. ≥ 90 % Combined satisfactory rating.	A-1 Third semester.	A-1 Clinical Coordinator	A-1 Yes 11/11=100%	A-1. None
		A-2. ≥ 90 % Combined satisfactory rating.	A-2. Fourth semester.	A-2. Clinical Coordinator	A-2 Yes 10/10=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. 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 9/9=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 96.4 %	None

College of Southern Idaho
Radiologic Technology Program
Outcome Assessment Summary for the Class of 2008
July 30, 2009

O. Gary Lauer, Ph.D., RT (R) ARRT
Program Director / Associate Professor
208-732-6719
glauer@csi.edu

Karen J. Roberts, BSRS, RT (R) ARRT
Clinical Coordinator / Instructor
208-732-6716
kroberts@csi.edu

Assessment Process

Graduate Performance (Program Effectiveness)	The benchmarks for graduate performance for the Class of 2008 related to the goal of program effectiveness 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	The benchmarks for clinical performance related to the goal of students being clinically competent were met.
	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.
Problem Solving and Critical Thinking	Three out of the four benchmarks related to the goal of students possessing problem solving and critical thinking skills were met. The benchmark that was not met was 3-1-B in which a randomly selected competency evaluation was supposed to reveal that ALARA exposure techniques were being selected by

	the students. Students were suppose to be writing their exposure techniques down and RT evaluators and clinical instructors were suppose to be ensuring this was done. Karen Roberts, Clinical Coordinator corrected this issue by communicating this need to students, RT evaluators and clinical instructors. She is monitoring the situation for ongoing compliance.
	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.
Communication Skills	The benchmarks for communication skills related to students communicating and interacting effectively with patients and others were met. The data collection for this category was affected minimally by one student who was dismissed from the program in the fall of 2007. During the fall of 2007 Karen Roberts was hired as the new clinical coordinator and she has been effective helping to improve data collection.
	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.
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	84.6% Twelve (12) students were selected for the class of 2008. After the first semester, one individual resigned her training position because she became pregnant and elected not to continue her training. Another individual was dismissed from the program for failing to pass a drug test. A transfer student was accepted which increased the total number of graduates for this class to 13 with 2 non-completers (11/13 = 84.6%). The program continues to meet its benchmark.
ARRT Pass Rates	100% first time pass rate for this year with an 85% mean standard score. The 5 year average is 98 % pass rate with an 86 % mean standard score. During RADT 182 Clinical Education III, the 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	100% employment of those seeking employment of those surveys returned. Eleven (11) surveys were sent out and 6 returned data. Of those 6 surveys returned 6 students were employed. Informally, we learned that all graduates obtained work after graduation. We are learning that even after following up with phone calls and additional questionnaires to collect data, some students simply ignore the request. They are done with school and that's the end of it. The program continues to meet its benchmark.
Graduate Satisfaction	4.4 on a scale of 1 to 5 of those surveys returned. Six (6) of the 6 surveys returned indicated that graduates felt they received a quality education that is "above average." This benchmark is met.
Employer Satisfaction	100% of the employers are satisfied with the performance of graduates. Nine (9) out of 9 surveys returned indicated that 9 employers of 9 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 program ranged from consideration of longer clinical rotations for added learning, to more OR time, to more lab time prior to clinical education. All of which are under consideration. 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 2009 outcomes assessment plan: For outcome 2-2-4 the 2009 plan will specify no simulation competencies. Students will be eligible for competency evaluations during 3 rd , 4 th , and 5 th semesters combined (instead of just the 5th semester). For outcome 4-4-2 Grade Determination Form Part 2 was revised as Form B and provides clinical instructors with a less cumbersome and more pertinent evaluation instrument for addressing employability skills. Outcomes 4-4-2 and 4-4-3 for 2008 were combined as 4-4—2 for 2009 to assess oral, listening, and writing communication skills in the clinical setting using Clinical Education Grade Determination Form B. This was done to improve efficiency in data collection.
	For 4-4-1-A1, we misplaced a file on one student who was dismissed from program in fall of 2007. For 4-4-1-A1-A2 the dismissed student's data was not included in outcome assessment. New transfer student (from the Air Force) joins the Class of 2008.
	97% of all benchmarks (35/36 = 97%) were met for the Class of 2009.
	Final thoughts. We are a relatively new program and are adapting to the JRCERT outcome assessment

	<p>process for continued program improvement. After working with JRCERT staffer, Ms. Barbara Burnham, BS, RT (R), FASRT, FAHRA, in the development and approval of this plan from programmatic accreditation site visit in Fall of 2007, we find two challenges: (1) getting organized for data collection and (2) managing the process. With Karen Roberts coming on board as our new clinical coordinator in the Fall of 2007 (at the time of our JRCERT site visit), conditions have improved and we have established a better tracking of tools and data. Also, 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 collect and process data. Although this is Summer Session 2009 and we just graduated the Class of 2009, this summer of 2009 we conducted the assessment on the previous graduating Class of 2008.</p>
--	--