

# College of Southern Idaho

## Radiologic Technology Program Outcome Assessment Plan—Class of 2015

**Mission: To prepare students to become 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 Institutional Research Graduation Report	≥ 80 % annual graduation rate.	Commencement (May)	Program Director	Yes 12/12 = 100%	None
2. Graduates will pass the ARRT exam in radiography on the first attempt.	A. Annual first time pass rate.	A. ≥ 80 % Annual first time pass rate.	January 1 to December 31 for graduating class.	Program Director	A. Yes Annual first time pass rate = 100%	A. None
	B. 5 year first time pass rate.	B. ≥ 80 % 5 year first time pass rate.			B. Yes 5 year first time pass rate = 89%	B. None
	C. Annual program mean scaled score.	C. ≥ 80 Annual program mean scaled score.			C. Yes Annual program, mean scaled score = 92	C. None
	D. 5 year program mean scale score.	D. ≥ 80 5 year program mean scaled score.			D. Yes (1/2011 to 12/2015) = 85	D. None
	[Note: Data from the ARRT Radiography Examination Summary.]					

3. Graduates will be employed within 6 months.	Alumni Survey Question # 4.	≥ 80 % of those seeking employment of those surveys returned. (Excludes military and continuing education.)	Six months post-graduation.	Program Director	Yes 12/12 = 100%	None
4. Graduates will receive a quality education.	Alumni Survey Question # 1.	≥ 80% students answer YES of those who returned surveys and answered the question.	Last day of class during final spring semester.	Program Director	Yes 12/12 = 100%	None
5. Employers will be satisfied with the (hard – technical) performance of graduates.	Employer Survey Question #4	≥ 95 % Combined satisfactory rating of those surveys returned.	Six months post - graduation.	Program Director	Yes 3/3 = 100%  (Note: This survey was conducted recently.)	None Send out between 6 months and 1 year and get greater commitment to answer survey.

**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 Orientation to Radiologic Technology Unite Exams # 4 – 7	A. ≥ 80 % Combined average score	A. First semester	A. Didactic Instructor	A. Yes 12/12 = 91.9%	A. None
	B. RADT 165 Fundamentals of CT.	B. ≥ 80 % Combined average score	B. Second semester	B. Didactic Instructor	B. Yes 12/12=92.7%	B. None
	C. All competency evaluation forms.	C. ≥ 90 % First time pass rate on all competency evaluations.	C. Third, Fourth, Fifth semesters	C. Clinical Coordinator	C. Yes 588/607=96.8%	C. None

	D. All unsatisfactory competency exams. #1,2,9.	D. ≤ 2% first time unsatisfactory rate of patient care tasks of all comps. (Note: We are counting comps, not tasks because it only takes one unsatisfactory to fail a comp. And, students may fail in one or more of the three areas for each Unsat comp.)	D. Third, Fourth or Fifth semester	D. Clinical Coordinator	D. Yes $2/607=.329\%$	D. None. Note: ARRT Patient Care section score was 8.8 (7.5 is passing).
2. Students will demonstrate quality positioning.	A. RADT 162 Radiographic Procedures II Unit Exams # 12 - 16.  B. All unsatisfactory competency exams. #5, 6, 7.	A. ≥ 80 % Combined average score.  B. ≤ 2% first time unsatisfactory rate of positioning tasks.	A. Fourth semester  B. Third, Fourth and Fifth semester	A. Didactic Instructor  B. Clinical Coordinator	A. Yes $12/12=92.22\%$  B. No $14/607 = 2.3\%$	A. None B. None: Increased reinforcement of correct CR placement and part positioning. Note: ARRT Procedures section score was 8.9 (7.5 is passing).
3. Students will apply appropriate radiation safety principles.	A. RADT 152 Radiation Protection Unit Exams # 7 and 8.  B - 1 All unsatisfactory competency exams #3, 4, 8.	A. ≥ 80 % Combined average score.  B-1. ≤ 2% first time unsatisfactory rate of radiation safety tasks.	A. First semester  B-1. Third, Fourth and Fifth semester.	A. Didactic Instructor  B-1. Clinical Coordinator	A. Yes $12/12=87\%$  B-1. Yes $6/607=.9\%$	A. None B-1. None Note: ARRT Radiation Protection section score was 9.3(7.5 is passing).

	B - 2 Final grade determination form B. #1	B-2. ≥ Score of 3 on a scale of 1 – 4 (Excellent to Unsatisfactory)	B-2. Fifth semester.	B-2. Clinical Coordinator	B-2. Yes 12/12 = 3.9	B-2. None
4. Students will demonstrate the ability to evaluate image quality.	A. RADT 153 Image Analysis Unit and Final Exams 1-15, Final Exam A and B.  B. All unsatisfactory competency exams image quality assessment factors.	A. ≥ 80 % Combined average score.  B. ≤ 2% First time unsatisfactory rate of image quality assessment factors.	A. Second semester.  B. Third, Fourth and Fifth semester.	A. Didactic Instructor  B. Clinical Coordinator	A. Yes 12/12 Mean = 94.4%  B. Yes 6/607 = .9%	A. None  B. None Note: ARRT Image Acquisition & Evaluation section score was 9.1 (7.5 is passing).

### 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 optimum kVp/Low mAs for the exposure index range (S#, LgM, IE).	A. RADT 164 Imaging and Processing Unit Exams # 5, 6. (Note: Exposure Techniques and AEC units)	A. ≥ 80 % Combined average score.	A. Fourth Semester	A. Didactic Instructor	A. Yes 12/12=86.3%	A. None.

	B. Final Grade Determination Form B. # 2 (Student thinks critically.)	B. ≥ Score of 3 on a scale of 1 –4 (Excellent to Unsatisfactory)	B. Fifth Semester	B. Clinical Coordinator	B. Yes 12/12 = 4	B. None
2. Students will assess the quality of radiographic images.	RADT 182 Clinical Education III # 4 Mock Exam / Section 3: Image Production and Evaluation.	≥ 7.0 Combined average ARRT normalized section score.	Fifth Semester	Clinical Coordinator	Yes 12/12 = (7.9) 8.9	None Note: ARRT Image Acquisition & Evaluation section score was 9.1 (7.5 is passing).
3. Students will adjust equipment operation and quality control factors.	RADT 182 Clinical Education III # 4 Mock Exam: Section 2: Equipment Operation and Quality Control	≥ 7.0 combined average ARRT normalized section score. .	Fifth semester	Clinical Coordinator	Yes 12/12 Mean = (6.4) 7.4	None Note: ARRT Equipment Operation & Quality Control section score was 9.2 (7.5 is passing).

#### 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 productive radiography-related discussions with patients, staff and each other.	Clinical Education Grade determination Form B # 5.	≥ Score of 3 on a scale of 1 – 4, (Excellent to Unsatisfactory).	Fifth semester.	Clinical Coordinator	Yes 12/12 = 4	None

2. 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. Fifth semester.	A. Clinical Coordinator  B. Clinical Coordinator.	A. Yes 12/12 Mean = 8.8 pts  B. Yes 12/12 Mean = 9.9 pts	A. None  B. None
<b>Category 5: Professional Growth and Development</b>						
<b>Goal 5: Students and graduates will behave ethically.</b>						
Outcomes	Tools	Benchmark	Tim Frame	Responsibility	Result	Action
1. Students will apply the employability skills of a radiographer.	Final Grade Determination Form B. #1-5	≥ 90 % Combined satisfactory rating. (out of 30 points.)	Fifth semester.	Clinical Coordinator.	Yes 12/12= 29.8/30=99.3%	None
2. Graduates will apply soft-personal employability skills of an RT (R).	Employer's Survey # 5 (personal skills)	≥ 95 % Combined satisfactory rating <i>of those employer surveys returned.</i>	Six months post graduation.	Program Director	Yes 3/3 = 100 %	None Note: Low response rate is consistent with previous surveys.
3. Students will develop a five year career development plan.	Five Year Career Development Plan	≥ 90 % Combined satisfactory rating.	Fourth semester	Clinical Coordinator	Yes 12/12 97.9%	None

**College of Southern Idaho  
Radiologic Technology Program  
Minutes of the Program Advisory Meeting  
For the Class of 2015 Outcomes Assessment Plan  
February 15, 2017 – 10 am to 2 pm – HSHS 178 / 139**

[Note: The back-log created from not being able to present the Classes of 2013 and 2014 Outcome Assessment Plan data during the 2014 and 2015 Program Advisory Committee meetings due to unforeseen circumstances (see explanations in Program Advisory Meetings Minutes of the Outcome Assessment Plans for the Classes of 2013 and 2014) created a back-log for the presentation of the Classes of 2015 and 2016 Outcome Assessment Plan data which both were presented and approved during the February 15, 2017 meeting.]

Members Present at the February 15, 2017 Meeting: Gary Lauer, Tamara Janak, Jayson Lloyd, RoseAnna Holliday, Rene Rambur, Merry Olson, Lee Ann Erickson, Tosha Rigby, Ron Jones, Ryan Mumford, Lindsay Smith, Kelsey Dietz, Lina Zenner, Jake Kerley, Debbie Bothwell, Robert Schramm, Rita Ruhter. Members Absent: Lawrence Blamires, Terry Patterson.

Rene Rambur motioned for approval of the Class of 2015 Outcome Assessment Plan. Robert Schramm seconded the motion. There was no discussion. Motion was unanimously approved.

**Program Effectiveness Measures  
(Category I: Graduate Performance)**

Program Completion Rates	Benchmark for 1.1.1. of $\geq 80\%$ annual graduation rate was met at 100%. All students selected into the Class of 2015 completed the program and graduated on time.
ARRT Pass Rates & Scaled Scores	All 4 benchmarks for 1.1.2. was met. Annual first time pass rate was 80% or greater at 100%. Five (5) year first time pass rate was 80 % or greater at 89%. Annual ARRT scaled score for Class of 2015 was 80 or greater at 92. Five (5) year ARRT program mean scaled score was 80 or greater at 85. (Note: Passing is 75 and national average is 84.)
Employment Rates	Benchmark for 1-1-3 of $\geq 80\%$ of those seeking employment of those surveys returned (excluding military and continuing education) was met at 100%. All graduates actively sought and found employment within 6

	months of graduation.
Graduate Satisfaction	Benchmark for 1-1-4 of $\geq 80\%$ students received a quality education was met at 100%.
Employer Satisfaction (of Graduate Technical Skills).	Benchmark for 1.1.5 $\geq 95\%$ combined satisfactory rating of those surveys returned was met at 100%.
Amendments to Category I: Graduate Performance (Program Effectiveness)	None.
Summary	All 8 benchmarks reflecting 5 outcomes were met for Category I: Graduate Performance. Students are completing the program, passing the registry exam, gaining employment, receiving a quality education, and satisfying employers with their technical competence.
<b>Student Learning Outcomes (Categories II – V)</b>	
Category II: Clinical Performance	10 out of 11 benchmarks reflecting 5 outcomes for Category II: Clinical Performance was met.
Amendments to Category II: Clinical Performance	None
Summary	10 out of 11 benchmarks reflecting 5 outcomes for Category II: Clinical Performance was met. For 2.2.2.B, the benchmark of 2% or less first time unsatisfactory rate of positioning tasks was not met at 2.3%. A review of the unsatisfactory positioning competency evaluations revealed failures primarily due to incorrect central ray placement and incorrect patient part positioning and the need for greater reinforcement of these skills in these areas. However, we are not alarmed by this as the program appears effective in preparing students to become clinically competent as entry level radiographers. As evidenced in the overwhelming number of assessments students undergo to prepare for and achieve competence as entry level radiographers, they are overwhelmingly demonstrating 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-lab 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. (Note: Collectively, the Class of 2015 exceeded the mean passing ARRT section score of 7.5 in all five sections of the radiography credentialing examination: (1) Rad Protection: 9.3, (2) Equipment Operation & Quality Control: 9.2., (3) Image Acquisition and Evaluation: 9.1, (4) Imaging Procedures: 8.9, and (5) Patient Care and Education: 8.9.)
Category III: Problem Solving and Critical Thinking	All 4 benchmarks for this goal were met.
Amendments to Category III: Problem Solving and Critical Thinking	None
Summary	All 4 benchmarks reflecting 3 outcomes for Category III: Problem Solving and Critical Thinking were met. The program appears 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.
Category IV: Communication Skills	All 3 benchmarks for Category IV: Communication Skills was met.
Amendments to Category IV: Communication Skills	None.
Summary	All 3 benchmarks reflecting 2 outcomes for Category IV: Communication Skills was met. The program appears effective in having students communicate effectively orally and in writing with patients, staff and faculty.
Category V: Professional Growth and Development	All 3 benchmarks for this goal were met.
Amendments to Category V: Professional Growth	None

and Development	
Summary	All 3 benchmarks reflecting 3 outcomes for Category V: Professional Development were met. The program appears effective in having students applying the values, ethics and compassion of a radiographer. They are developing a 5 year career development plan.
<b>Assessment Plan Review</b>	
Summary	28 out of 29 benchmarks (96.5%) that were measured reflecting 17 outcomes assessed covering 5 goals were met. Only 2.2.2.B was not met, and it revealed a need for greater reinforcement of central ray placement and patient positioning skills. The program is meeting its mission and goals.
Mission Statement	Recommend no changes to the program mission statement. The College of Southern Idaho's Associate of Applied Science Radiologic Technology Program in Radiography is preparing graduates for entry level employment as ARRT Registered Technologists in Radiography.
Goals	Recommend no changes to the program goals. The goals established to achieve the mission of the program are being met. Program effectiveness is being measured on an ongoing basis. Students are clinically competent. Students possess problem solving and critical thinking skills. Students communicate and interact effectively with patients and staff. Students and graduates behave ethically.
Recommended changes to the assessment plan.	None
Final Thoughts	Next Program Advisory Meeting is tentatively scheduled for February, 2018 when the final outcomes assessment plan data for the Class of 2017 (only) will be presented.