DEPARTMENT REPORT
OF
PROGRAM LEARNING OUTCOMES ASSESSMENT

. Department: RAT

Program (Degree): Radiologic Technology (RAT)

Type of Degree: X AAS ____ AA ____ AS ____ ATS ____ AIS

Chairperson: Denise Moore Date: 3/15/01

Person(s) Interviewed: Denise Moore and Bev VanDenEinde

I. **Program Curriculum:** A description of the basis for the program curriculum (i.e., how it is derived and validated). Include accreditation organizations, advisory committees or external groups that influence curriculum. Describe curriculum review activities including the review of course master syllabi.*

Program outcomes were reviewed as part of the 2000 program re-accreditation review conducted by the Joint Review Committee on Education and Radiologic Technology (JRCERT). Outcomes and the program's assessment plan are consistent with the 1997 *Standards for an Accredited Educational Program in Radiologic Sciences* and the *Professional Curriculum For Radiography* as prescribed by the American Society of Radiologic Technologists. Additionally, the RAT advisory committee reviews and approves all curricular components.

The Joint Review Committee on Education in Radiologic Technology (JRCERT) in September 2000 conducted an onsite review of the program. The program received an outstanding exit report and was subsequently received the maximum eight-year re-accreditation award. It should be noted that during the same review period, only 23 of the 60 (38%) reviews completed received a full eight-year re-accreditation award. The program is required to submit an interim report after four years and is tentatively scheduled for its next self-study submission in late 2007.

II. **Program Learning Outcomes:** A description of what you intend for students to know (cognitive), think/feel (affective), or do (psychomotor), when they have completed your degree program. A suggested manageable number of outcomes should be in the range of five to ten. Describe Program Learning Outcomes review activities.*

An entry-level graduate with an Associate of Applied Science Degree in Radiologic Technology from Sinclair Community College will be able to:

Learning Outcomes	Related Courses
1. Demonstrate professional behaviors that are consistent with the delivery of humanistic, moral, and ethical patient care.	RAT 111, 112, 131, 211, 212, 213, 214, 218; ALH 103, 106
2. Demonstrate the ability to comprehend, apply and evaluate information and concepts relevant to the entry-level skill of a radiographer.	RAT 111, 112, 121, 122, 123, 131, 199, 211, 212, 213, 214, 215, 217, 218, 219, 222, 226, 232; BIO 131, 132; PHY 106; HIM 121; ALH 103, 104, 106, 140
3. Apply the principles of radiation protection for patients, self, and others.	RAT 111, 112, 121, 122, 123, 211, 212, 213, 214, 217, 218, 222, 226, 232; PHY 106
4. Deliver competent radiographic practice with entry-level skill related to fluoroscopic, general and mobile radiographic procedures.	RAT 111, 112, 121, 122, 123, 131, 199, 211, 212, 213, 214, 215, 217, 218, 219, 222, 226, 232; BIO 131, 132; PHY 106
5. Analyze the finished radiograph for quality and acceptability, and demonstrate sound problem-solving techniques in correcting unacceptable radiographs at entry-level competence.	RAT 111, 112, 121, 122, 123, 211, 212, 213, 214, 217, 218, 222; BIO 131, 132

A review of program outcomes and an audit of the curriculum are conducted on a biennial basis as part of the department review process. The department is planning a curriculum revision to be submitted in 2001-02.

III. <u>Assessment Method(s)</u>: A measurable indicator of success in attaining the stated learning outcome(s). The methodology should be both reliable and valid. Please describe in detail.

a. Formative Assessment Methods(s) and Description: a measurable indicator of student in-progress success in attaining the stated learning outcome(s).

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Each technical course has a comprehensive written exam administered by faculty at the end of the quarter. In addition, at the conclusion of the RAT student's first year, a "first-year comprehensive assessment" examination is administered. Students must achieve a 70% or higher mastery level to pass. Students who do not receive the minimum performance score are required to repeat the examination after informal remediation with appropriate faculty. Repeat attempts are limited to two. After three attempts, a special course is available for formal remediation (RAT 265, Radiology Seminar, a variable-credit-hour course). Students work one-on-one with a faculty member who assists them in developing an individualized remediation plan. Student progress in the

curricular sequence is dependent upon successful completion of the remediation plan.

During the first year curriculum, students who fail to complete courses with a "C" grade or higher are withdrawn from the program. They are eligible to apply for reinstatement one time only. During the second year a student can repeat each RAT course once. If a student does not pass a course after two attempts he/she is withdrawn from the program. A mastery level of 71% or higher in lecture (didactic) and a mastery level of 80% or higher in clinical is required to pass.

A clinical competency assessment plan is required of each RAT student. The plan includes objectives, behaviors, skills, knowledge and competencies that are used to assess student progress. Students use the plan as a guide to progress through the clinical competency expectations of the program. Students must complete a minimum of two competencies per quarter, but are encouraged to complete more than two competency checks to meet all program clinical competency requirements.

During each quarter, initial and mid-quarter one-on-one counseling sessions are held with each student by clinical faculty. At the conclusion of each clinical quarter faculty meet individually with students to review performance focused primarily on psychomotor, professional and affective skills. Departmentally developed performance review forms are used for this purpose.

Hospital staff provide input regarding student clinical progress. Special forms that focus on behavioral skills are used for this purpose (*RT Evaluation Form)*.

b. Summative Assessment Method(s) and Description: a measurable indicator of end-of-program success in attaining the stated program learning outcome(s).

A two-credit-hour capstone course (RAT 226 Synopsis in Radiography) is required of all RAT majors. This course is a synopsis of the entire RAT curriculum. Students must complete a comprehensive written examination, representative of the national certifying examination. Student performance on this examination results in the final grade in RAT 226. Four practice examinations are available for the student to take on a voluntary basis. Feedback from the voluntary exams is given to the students to point out their strengths and weaknesses. The final examination must be passed at a 71% or higher mastery level. A correlation study conducted by the department indicated that a 71% pass level on the department examination correlates with at least a 75% or higher performance on the national examination.

A four-credit-hour course (RAT 214 Clinical Education VI) is required of all RAT majors. Included in this capstone course are three major evaluation categories focusing on mobile radiography, general radiography, & fluoroscopy. Evaluations include skill, attitudes (professionalism/ethics) and knowledge competency levels. Clinical faculty evaluate student performance and students must achieve a 80% or higher mastery level to pass. The final assessment form used for this process has been revised to improve evaluator reliability and clarify performance expectations for students.

Overall program assessment and evaluation is an on-going process and the plan includes the following components: Program Outcomes, Teaching and

Learning Strategies, Key Performance Indicators, and Actions for Unmet Criteria (see attachment). Each KPI (see attachments: KPI 1-10) is tracked and results documented with comments indicating actions taken when benchmarks are not met.

* Note: Every department is required to review Master Syllabi and Program Learning Outcomes a minimum of every two years.

IV. Results: A description of the actual results of overall student performance gathered from the summative assessment(s). (see III.b.)

See attached *Program Review and Assessment Plan* and *KPI documents 1-10*

V. Analysis/Actions: From analysis of your summative assessment results, do you plan to or have you made any adjustments to your program learning outcomes, methodologies, curriculum, etc.? If yes, describe. If no, explain.

See attached *Program Review and Assessment Plan* and *KPI documents 1-10*

VI. General Education: A description of where and how within the major the three primary general education outcomes* (communication, thinking, values/citizenship/community) are assessed.

a. Where within the major do you assess written communication? Describe the assessment method(s) used. Describe assessment results if available.

Major writing assignments are linked to technical courses in each quarter. Most faculty use the gen-ed writing check list as the evaluation tool. Students' writing skills continue to be an area of weakness. Inter-rater reliability in evaluation of students' writing skills also continues to be an issue. The department plans to develop a rubric to be used by every faculty member for every writing assignment in technical courses. The rubric will incorporate gen-ed criteria. In addition, the department has adopted the American Medical Association's citation style.

b. Where within the major do you assess oral communication? Describe the assessment method(s) used. Describe assessment results if available.

Oral skills are assessed in every clinical course through observation of student-to-patient interaction. Students' oral skills are routinely assessed as a component of the clinical competency procedure using a standard program form. The final clinical evaluation also assesses oral skills.

The department has generated an affective domain checklist that is used to obtain feedback at midterm and the end-of-quarter. For example, interpersonal and teamwork skills are assessed.

c. Where within the major do you assess thinking? Thinking might include inventing new problems, seeing relationships and/or implications, respecting other approaches, demonstrating clarity and/or integrity, or recognizing assumptions. Describe the assessment method(s) used. Describe assessment results if available.

Although thinking assessment is ongoing, the RAT department sought outside radiology colleagues to explore options for assessing critical thinking skills of students. In addition, through this initiative, faculty attempted to more clearly define components of

thinking to improve consistency and reliability of thinking assessment. Radiology faculty from UC, OSU and SCC met to explore activities that serve to enhance and assess student thinking ability.

As a result of this meeting, a critical thinking assessment tool was created by the group and is currently being used as part of a pilot study for SCC RAT students. Four groups of students are included in the pilot: 2 groups of entering students (F00, W01) and 2 groups of graduating students (F00, Sp01). Assessment results are to be tabulated and analyzed to determine if significant differences exist in thinking skills.

As an added note, I would like to express concern about our capacity to do reliable and valid assessments of student thinking skills. In my opinion, this area persists as a poorly defined gen-ed outcome for the college. Our department needs help with understanding various components of thinking from the gen-ed perspective, i.e., what are the expected outcomes and are mechanisms available to formally/objectively measure and validate thinking outcomes?

d. Where within the major do you assess values/citizenship/community? These activities might include behaviors, perspective, awareness, responsibility, teamwork, ethical/professional standards, service learning or community participation. Describe the assessment method(s) used. Describe assessment results if available.

Every clinical course focuses on professional and ethical behaviors. These competencies are assessed at scheduled and impromptu times throughout the quarter. The following assessment tools are used: mid-term performance review, final quarterly evaluations, clinical competency assessments (level 1, 2 and final), and through RT evaluation forms. Assessment of these competencies is ongoing for the student's professional growth.

***** Note: The oral communication checklist and the written communication checklist developed by the General Education Committee were adopted for college-wide use during the 1997-98 academic year by Academic Council. Thinking Guidelines developed by the General Education Committee were piloted by faculty during the 1998-99 academic year. Currently, a Student Honor Code is being developed.

Radiologic Technology Program - Program Review and Assessment Plan

Program Outcomes	***Teaching/Learning Strategies***	***Key Performance Indicators***	***Ac***
O1 - *Demonstrate professional behaviors that are consistent with the delivery of effective, humanistic, moral, and ethical patient care*.	**S1** - Lecturers: Covering theories of knowledge-based outcomes **(O1-O5)**	**KPI-1:** Exit Interview/Survey Results **(O1-05)**	**A1** cu cli res we
O2 - *Demonstrate the ability to comprehend, apply and evaluate information and concepts relevant to the entry-level skill of a radiographer***.**	**S2** – Group and process education activities leading to discovery/active learning enhancing teamwork and critical thinking skills **(O1-5)**	**KPI-2**: Scores/data on the national ARRT certification examination: ➢ pass rate ≥ 90% each year and ≥ 94% for most recent five year period. average scaled total test score ≥ national average ➢ section scores ≥ national average	**A2** of fal as co stu rel

		(O2-O5)	
O3 - *Apply the principles of radiation protection for patients, self and others.*	**S3** - Laboratory: Application of theory **(O1-O5)**	**KPI-3** Graduate Satisfaction Survey. ➢ Survey > 3.0 for individual items and composite items (5.0 scale). **(O1-O5)**	**A3** cli co ou Sa res **(K**
O4 - *Deliver competent radiographic practice with entry-level skill related to fluoroscopic, general and mobile radiographic procedures.*	**S4** - Clinical experience: "Real world" experience enabling student to progressively build competencies. **(O1 - 05)**	**KPI-4:** Employer's Satisfaction Survey of graduate after career entry: ➢ Positive responses > 3.0 score (5.0 scale) **(O1 -O5)**	**A4** dif cli rer cli **5)**
O5 - *Analyze the finished radiograph for quality and acceptability, and demonstrate sound problem-solving skills in correcting unacceptable radiographs at entry-skill*.	**S5** - Communication exercises: written assignments in every quarter in didactic and clinical courses; oral critiques in clinical courses. **(O1,O4, O5)**	**KPI-5:** Pass rate for final clinical competency evaluations: ➢ ≥ 90 % on 1st attempt and 100 % on final attempt **(O1-O5)**	**A5** str res fin ac **(K**
	S6 - Student presentations: Film analyses & case studies in each clinical course. **(O2,O4,O5)**	**KPI-6:** Pass rate for final comprehensive written exam: ➢ 85% on 1st attempt ➢ 100% end result ➢ average test score ≥75% **(O2-O5)**	**A6** res co Sta **(K**
		KPI-7: Pass rate on 1st year assessment exam: ➢ 70% on 1st attempt ➢ 100% end result **(O2-O5)**	

Program Outcomes	***Teaching/Learning Strategies***	***Key Performance Indicators***	***Ac***
O1 - *Demonstrate professional behaviors that are consistent with the delivery of effective, humanistic, moral, and ethical patient care*.	**S1** - Lecturers: Covering theories of knowledge-based outcomes **(O1-O5)**	**KPI-8:** Course completion rates ➢ > 75% average over 5 year period for each course in technical curriculum **(O1-O5)**	**A1** cu cli res we
O2 - *Demonstrate the ability to comprehend, apply and evaluate information and concepts relevant to the entry-level skill of a radiographer.*	**S2** – Group and process education activities leading to discovery/active learning enhancing teamwork and critical thinking skills **(O1-5)**	**KPI-9**: Graduation rate: ➢ JCERT standard of 150% of program matriculation **(O2, O4)**	**A2** of fal as co stu rel
O3 - *Apply the principles of radiation protection for patients, self and others.*	**S3** - Laboratory: Application of theory **(O1-O5)**	**KPI-10** Job placement rate: ➢ JRCERT standard of 75% in 6 months **(O1, O4, O5)**	**A3** cli co

			ou Sa res **(K**
O4 - *Deliver competent radiographic practice with entry-level skill related to fluoroscopic, general and mobile radiographic procedures.*	**S4** - Clinical experience: "Real world" experience enabling student to progressively build competencies. **(O1 - 05)**		**A4** dif cli rer cli **5)**
O5 - *Analyze the finished radiograph for quality and acceptability, and demonstrate sound problem-solving skills in correcting unacceptable radiographs at entry-skill*.	**S5** - Communication exercises: written assignments in every quarter in didactic and clinical courses; oral critiques in clinical courses. **(O1,O4, O5)**		**A5** str res fin ac **(K**
	S6 - Student presentations: Film analyses & case studies in each clinical course. **(O2,O4,O5)**		**A6** res co Sta **(K**

Radiologic Technology Program

Assessment Data

KPI-1: Exit Interview/Survey Results Related Program Outcomes: O1 – O5

Track/ Year	Results (anecdotal)	Actions
A-95	Strengths: curriculum, clinical opportunities, supportive faculty Weaknesses include: BIO and Sectional anatomy courses too hard; make sectional slides available outside of lab; clinical faculty expect different things at different sites, some students go home early, increase the number of people who can do competency check-offs.	Develop video version of slides for home use, make separate lab key for students to check out for lab access during extended hours, arrange for student lab access on weekends; establish routine clinical meetings for clinical faculty to provide more consistency of application of policy; begin training more RTs to do check-offs.
B-95	Strengths: personal, sensitive faculty, quality instruction, and clinical affiliates. Weaknesses: some clinical faculty are too impatient and take over during a level 2 evaluations and are unreasonable; clinical faculty expectations are inconsistent and not all apply the same value (inter-rater reliability is a problem)	Review with all clinical faculty expectations during level check-offs; develop video of student performances and evaluate as a team to improve inter-rater reliability of all clinical faculty and associates; speak directly to each faculty member 1-1 regarding student feedback.
A-96	Strengths: curriculum, review course and clinical opportunities as well as faculty who really care Weaknesses: Too much faculty attention of students in RAT 214 for final assessments with not enough in the RAT 212/213 tracks; faculty	Revised curriculum (effective F97)to reduce contact hours in RAT 214 so that one day/week faculty concentrates on RAT 212/213 students; propose lab assistant in budget FY: 96-97to provide

	inconsistency in evaluating check-offs, not enough access to lab resources, no one avail in lab to help	greater lab access
B-96	Strengths: curriculum, faculty, clinical sites Weaknesses: faculty application of clinical policy and check-offs is inconsistent; faculty knowledge of equipment and procedures needs improved, lab access; critical of Process Ed methodology in RAT 223	Use clinical associates semi-annual meetings to refresh all clinical faculty in expectations during competency evaluations; expand Process Ed and collaborative learning methodologies in other RAT courses (RAT 122).
A-97	Strengths: curriculum, caring faculty, great program Weaknesses: clinical faculty inconsistencies and their knowledge of equipment due to too much faculty rotation, availability of clinical staff to do check-offs; Process Ed complaints	Establish community-wide taskforce to identify and improve clinical education problems communicated by students and clinical representatives.
B-97	Strengths: very supportive and compassionate faculty; sound curriculum, great clinical sites Weaknesses: demand across clinical faculty inconsistent, not enough clinical faculty to do check-offs; Process Ed complaints-wants to be spoon fed	Apply task force recommendations to permanently assigned faculty to clinicals, add number of clinical associates available to do check-offs; discussed student anxiety over active learning environments
A-98	Most comments were positive concerns-different personalities of clinical faculty and expectations; also suggest that we delete pharm from curriculum.	No action taken
B-98	Significant positive remarks regarding curriculum, faculty and facilities Weaknesses: a couple of students identified writing assignments as useless and use of the CD ROM units a waste of time; pharmacology hard to do in 3 weeks	Increase emphasis on the importance of writing skill across the entire curriculum so all student value its place in the learning process; implement 5 week pharm sched in fall 99.

KPI-1: Exit Interview/Survey Results Related Program Outcomes: O1 – O5

Track/ Year	Results (Scannable Survey Form Used)	Actions
A-99	Majority of students satisfied with time assigned general, fluoro, and second shift assignments but 46% would prefer more time assigned to mobiles and 54% would like more time in problem-solving activities; they rate RAT faculty as better than non-RAT faculty in each area assessed; lab support facilities and resources were highly regarded	Clinical faculty are planning for increased use of case studies to bolster problem-solving and critical thinking skills.
B-99	31% desire more time in general rad; 38% more time on 2nd shift; 69% desire more problem solving activities; all faculty ratings high; verbal complaints about CMC were noted (feelings of isolation and no interest on part of techs); positive comments about Lisa and Bob; suggest assigning more faculty time	CMC: Cyndy Stachler given release time to be avail to meet new students on 1st day; orientation sessions have been formally scheduled; a critical thinking workshop is planned for faculty later in the year to enhance problem-solving skills for students and to increase the use of critical thinking assignments.
A-00	Majority of students satisfied with time assigned general, fluoro, mobile, special rotations, film critique, problem solving/teamwork experiences but 40% indicate a desire for additional time for second shift assignments; majority rate faculty in all areas as "better than" non-RAT faculty; high ratings on lab and its use and CD ROM resources (100 and 93%). Numerous comments about lecture packet and video tape problems in bookstore; many suggested doing RAT 199 as independent study; Sociology complaints related to relevance.	Report findings to bookstore to work with Jody to improve packet availability; sending out videos to professional company to duplicate; move toward developing RAT 199 as a web-based course; met with Donna Fletcher to discuss changes in SOC 145 offering to make more relevance; continue to work with FMC in resolving problems. Note: FMC officially closed operations 8/1/00
B-00	Most students satisfied with rotations, facilities assigned time and faculty. They would like increased opportunity to rotate across clinicals and would like to get more formal instruction in positioning in every qt. Lots of complaints about SOC 145 and its relevancy to RAT practice.	RAT faculty are in the process of creating a more formalized, planned positioning review across the clinical curriculum. Met with SOC faculty to revise course content to be more applicable. They agreed to restructure the course using a text and content that approaches cultural competency development more parallel to health care delivery. Implementation planned for SP01.

Radiologic Technology Program
Assessment Data

KPI-2: Scores/data on the national ARRT certification examination:

- Pass rate ≥ 90% each year and ≥ 94% for most recent five year period.
- Average scaled total test score ≥ national Average
- Section scores ≥ national Average for each section

Related Program Outcomes: O2 – O5

Track/ Year	Actual Results			Actions
	SCC/ARRT Pass - Rate	**SCC/ARRT Mean**	**ARRT section < National Ave**	
A-94	100% - 91.5%	87% - 84%	N/A	No action required, met outcome
B-94	94% - 85%	82% - 82%	Sec A, C, D < national Ave	Monitor these sections next exam to validate real problem
A-95	100% - 91.4%	87% - 84%	All sec ≥ national sec Average	No action required, met outcome
B-95	100% - 84%	86% - 81.8%	Sec B 0.1 < national Ave	Monitor Sec B scores; note Sec E significantly > nat Ave.
A-96	100% - 93%	87% - 84%	Sec A 0.1 < national Ave	Monitor Sec A scores; note Sec B scores 0.3 >national Ave
B-96	92% - 82%	86% - 81%	All sec > national sec Average	No action required, met outcome; note Sec B significantly > national Ave
A-97	100% - 92%	86% - 84%	All sec ≥ national sec Average	No action required, met outcome
B-97	94% - 86%	83% - 81.9%	Sec C 0.2 < national Ave	Monitor Sec C scores; note Sec B > 0.2 & E > 0.5 above national Ave
A-98	94% - 92%	82% - 84%	All sec < national Ave	Class includes numerous re-tracking students, overall weak class; monitor next exam scores to look for trends
B-98	100% - 80%	85% - 80%	Sec A,B,C,D significantly > national Ave; Sec E =national Ave	No action required, met outcome
A-99	100%- - 90%	85% - 83%	Sec A,B,C,D > national Ave; Sec E =national Ave	No action required, met outcome
B-99	100% - 100%	78% - 85%	Exceeded ave in all sec	No action required. 1 student (A00) has not applied for the ARRT exam.
A-00	100% -	77% -85%		
B-00	pending		Exceeded ave in all secs	As of March, all but 3 have applied and passed

Radiologic Technology Program
Assessment Data

KPI-3 Graduate Satisfaction Survey:
- Survey > 3.0 for individual items and composite items (5.0 scale).

Related Program Outcomes: O1 – O5

Graduate Satisfaction Surveys were developed using a ***Gap Analysis*** format. Graduates were asked to rate each item (n-= 24) on the **importance of** and their **level of satisfaction with** college and program-specific assessment categories. Results are reported below.

Track/ Year	Actual Results	Actions
	Items receiving ≤ 3.0 (5.0 scale)	
A-95 B-95	♦ 1 item (2.67 on satisfaction) regarding the availability of scholarships ♦ No program-specific items < 3.0	No action taken
A-96 B-96	♦ 1 item (2.67 on satisfaction) regarding the availability of scholarships ♦ No program-specific items < 3.0	No action taken
A-97 B-97	♦ 1 item (2.67 on satisfaction) regarding the availability of scholarships ♦ No program-specific items < 3.0	No action taken
A-98 B-98	♦ No items < 3.0 noted	W.Lee Shadle Scholarship Fund established but currently is not large enough for continuing funding.
A-99 B-99 A-00	♦ Pending: mailed August, 00 Pending: mailed August, 00	Pending
B-00	♦ To be completed next survey mailing	Pending next survey mailing

Radiologic Technology Program
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KPI-4: Employer's Satisfaction Survey of graduate after career entry:
- Positive responses > 3.0 score (5.0 scale)

Related Program Outcomes: O1 – O5

Note: Employer Surveys are conducted 1+ year post graduation.

Track/ Year	Actual Results Items < 3.0 on 5.0 Scale	Actions/Comments
A-95 B-95 A-96	♦ 1 rating poor on ***work attitude*** (professionalism)	♦ Employer Surveys were sent in 97 to gather feedback on Grads from 95 & 96.

B-96	♦ 1 rating poor on ***Problem-solving ability*** ♦ 1 overall rating of ***"somewhat low quality"*** ♦ All other items meet or exceed benchmarks	♦ 12 respondents returned surveys ♦ Negative findings were reported in 3 areas ♦ Mean score values for all items met outcome expectation ♦ Discussed findings with Advisory Committee members. Monitor future findings to determine trends.
A-97 B-97	♦ No data available ♦ Included in 1999 Survey ♦ Results Pending	All college-related research studies were suspended in 1998 to prepare for NCA accreditation
A-98 B-98	**Survey administered Aug 1999** ♦ SCC College wide employer survey results: 6 ed dimensions were assessed with >78% ratings of good to very good with improved ratings for *job-related tech knowledge and quality of work* ♦ Employer suggestions for improved training focused on improved customer service, IV training	♦ Customer service/relations will continue to be a primary focus of all clinical courses. RAT 131 is constantly updated to address patient care issues. RAT 226 emphasis on patient care will increase its focus on customer service and ethical dilemmas.
A-99 B-99 A-00	Survey sent Aug 00 to graduates. Employer survey completed pending graduate release of employer data	
B-00	To be completed next survey run	

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Assessment Data

KPI-5: Pass rate for final clinical competency evaluations:

- ≥ 90 % on 1st attempt and 100 % on final attempt

Related Program Outcomes: O1 – O5

Track/ Year	Total # Students	% Pass 1st Attempt	Total % Pass on Repeats	Actions/Comments
A-94	21	95%	100%	♦ 1 student repeated mobile competency evaluation ♦ No action required
B-94	18	100%	100%	♦ No repeats, no action required
A-95	18	100%	100%	♦ No repeats, no action required
B-95	14	100%	100%	♦ No repeats, no action required
A-96	12	100%	100%	♦ No repeats, no action required
B-96	15	93	100%	♦ 1 student repeated general radiographic competency evaluation
A-97	15	100%	100%	♦ No repeats, no action required
B-97	18	94	100%	♦ 1 student repeated fluoro competency evaluation

A-98	17	100%	100%	♦ No repeats, no action required
B-98	17	94%	100%	♦ 1 student repeated fluoro competency evaluation
A-99	15	80%	100%	♦ 3 students from the same clinical facility repeated general radiographic competencies and 1 also repeated mobile competency. ♦ Political problems at this facility created attitude problems for staff and students. Program and hospital department officials met to identify quality improvement measures to include: ♦ Adjustments to work schedules of clinical staff ♦ Group discussion with clinical staff ♦ 1:1 discussions with specific clinical staff ♦ Group discussions with students ♦ Modifications of student assignments to rooms and staff
B-99	15	100%	100%	♦ No repeats, no action required
A-00	15	87%	100%	♦ 2 students received no pass on final comps: ♦ 1 student =fluoro ♦ 1 student= fluoro and mobiles- this student (UVMC) complained. Resignation of typical CI and replacement with SCC faculty created a conflict that was resolved through discussions.
B-00	13	100%	100%	♦ No repeats, no action required
A-01	Pending	pending	pending	♦

Radiologic Technology Program

Assessment Data

KPI-6: Pass rate for final comprehensive written exam:

- 85% on 1st attempt
- 100% end result
- average test score ≥75%

Related Program Outcomes: O2 – O5

Track/ Year	Actual Results	Actions

	N	Mean Score	% Pass Rate 1st Attempt	% Pass 1st & 2nd Attempt	
A-94	22	84	95%	100%	Met criteria, no action required
B-94	17	77	94%	100%	Met criteria, no action required
A-95	19	82	95%	100%	Met criteria, no action required
B-95	14	78	100%	100%	Met criteria, no action required
A-96	12	82	92%	100%	Met criteria, no action required
B-96	14	77	93%	100%	Met criteria, no action required
A-97	16	78	100%	100%	Met criteria, no action required
B-97	19	74	74%	100%	Mean score increased with repeat exam adjustment
A-98	17	74	82%	100%	3 repeats; mean score increased with repeat exam adjustment
B-98	17	76	94%	100%	1 repeat; mean score increased with repeat exam adjustment
A-99	15	72	73%	93%	4 repeats; 3 successful; 1 failed; mean score increased with repeat exam adjustment
B-99	16	78	69%	100%	4 repeats; 4 successful; required repeaters to formally enroll in RAT 265 for remediation
A-00*	15	77	93.%	100%	1 repeat; 1 successful; required repeater to formally enroll in RAT 265 for remediation
B-00	13	79	85%	pending	2 repeats pending 2/01
A-01	pending				

*The program is in the process of converting paper-pencil tests to CBT. Track A-00 will complete exam in Spring 00 using CBT.

June 00: Due to lack of technical support with CBT software and logistic problems, the program has temporarily suspended its plan to do a CBT final exam.

Radiologic Technology Program

Assessment Data

KPI-7: Pass rate on 1st year assessment exam:

- 70% on 1st attempt
- 100% end result

Related Program Outcomes: O2 – O5

Track/ Year	Actual Results	Actions

	N	% Pass Rate 1st Attempt	# Pass 2nd Attempt	# Pass Rate 3rd Attempt	
A-94	16	63%	5	N/A	Monitor for next offering
B-94	16	50%	4	2	2 dropped Program; assessed each section of test to remove ambiguous items
A-95	18	67%	6	N/A	Moved cut score from 80% to 70%
B-95	14	79%	3	N/A	No action required
A-96	13	70%	4	N/A	No action required
B-96	16	75%	4	N/A	No action required
A-97	15	53%	7	N/A	Students claim they did not prepare since they could repeat. Re-emphasize importance of proper prep for future students.
B-97	19	42%	8	0%	3 students repeated exam for 2nd time; 1 dropped after 2nd try ; 2 failed a 3rd time and required to enroll in RAT 265 for remediation; successful on final attempt.
A-98	20	50%	7	1	2 students took RAT 265 for remediation; successful on final attempt.
B-98	16	63%	6	N/A	70% 1ST time pass rate consistently not attained; but 2nd year final exam and ARRT exam results continue to be strong. No action taken
A-99	14	64%	3	2	No action taken
B-99	14	43%	5	2	1 student dropped
A-00*	15	87%	2	N/A	*Took exam in RAT 213 with B-00 using CBT. See comments for B-00
B-00	15	60%	6	N/A	9 of 15 1st time pass; all successful on 2nd attempt. This was a disastrous attempt at CBT. Too many problems with technical support and test construction. CBT postponed temporarily
A-01	10	50%	4	0	1 student currently in RAT 265 remediation
B-01	13	62%	pending		

*Took exam 1 quarter later to provide opportunity for CBT.

Assessment Data

KPI-8: Course completion rates (# of enrollees who complete the course: # of enrollees who begin the course.

- > 75% average for each course in technical curriculum over 5 year period.

Related Program Outcomes: O1-O5

Qt/Year	Actual Results	Actions
F 97	All courses > 75% benchmark; note: BIO 131 has high failure/withdraw rate	Apply retention strategies identified in the department retention plan.
W 98	All courses > 75% benchmark but BIO 131 continues to have low retention rate	Apply retention strategies identified in the department retention plan.
SP 98	All courses > 75% benchmark	Non required
SU 98	All courses > 75% benchmark	Non required
F 98	All courses > 75% benchmark however BIO 131 has high failure/withdraw rate	Apply retention strategies identified in the department retention plan.
W 99	All courses > 75% benchmark however BIO 131 has high failure/withdraw rate	Apply retention strategies identified in the department retention plan.
SP 99	All courses > 75% benchmark	Non required
SU 99	All courses > 75% benchmark	Non required
F-99	All but BIO 131 (70.4%) has a courses completion rate > 75% benchmark and BIO 131 has high failure/withdraw rate	Apply retention strategies identified in the department retention plan. Officially offer faculty-led study groups for students.
W 00	All courses > 75% benchmark however BIO 131 has high failure rate.	Apply retention strategies identified in the department retention plan. Officially offer faculty-led study groups for students. Investigate the potential of modularizing BIO sequence across 4 qts.
SP 00	All courses > 75% benchmark	Non required
SU 00	All courses > 75% benchmark	Non required
F 00	BIO 131, RAT121 and RAT 131 were below 75% benchmark. BIO 131 persists with the highest attrition = 49%. RAT 121 = 31% attrition RAT 131 = 41%	A task force with reps from RAT and BIO applied for a learning challenge grant to develop a modularized approach to the BIO 131/132 sequence. The grant application was denied; however, other alternatives are currently under review. In addition, BIO 107 and other gen-ed courses are being considered as program admission requirements. High attrition in RAT 121 & 131 are unusual. This may have been a unique occurrence. Monitor next qt findings to check for trends.
W 01	pending	
SP 01		
SU 01		

Radiologic Technology Program
Assessment Data

KPI-9 Graduation rate:
- JCERT standard: grads earn degrees within 150% of program matriculation date

Related Program Outcomes: **O2, O4**

Track/Year **Graduation**	Actual Results	Actions/Comments
A-97	All within 150% benchmark	2 students at the 150% point; no action required
B-97	All within 150% benchmark	5 students @ 150% point; no action required
A 98	All within 150% benchmark	No actions required
B 98	All within 150% benchmark except 1; see actions/comments for explanation	1 student pending graduation and likely not able to meet 150% point due to personal and professional issues. Individualized learning plan developed for this student.
A 99	All within 150% benchmark	No actions required
B 99	All within 150% benchmark	1 student was dismissed in final quarter for ethics violations and attendance problems. See B-98 actions/comments.
A 00	All within 150% benchmark	No actions required
B 00	Pending	
A 01		
B 01		
A 02		
B 02		

Radiologic Technology Program
Assessment Data

KPI-10 Job placement rate:
- JCERT standard: 75% in 6 months

Related Program Outcomes: **O1, O4, O5**

Track/Year	Actual Results	Actions
1995-96 Graduates	90% of respondents placed in field	None required
1996-97 Graduates	82% of respondents placed in field	None required
1997-98 Graduates	82% of respondents placed in field	None required
A-98 Graduates	94% grads employed; 1 unemployed, 1 employed in sonography	None required

B-98 Graduates	89% grads employed; 1 employed outside field, 1 in rad therapy school, 1 in BS program	None required
A-99 Graduates	93% grads known to be employed 1 unknown	None required
B- 99 Graduates	93% grads employed; 1 grad not yet registered but working in peripheral area	None required
A 00 Graduates	93% grads known to be employed; 1 unknown	None required
B 00 Graduates	100% grads employed	None required
A 01		
B 01		
A 02		
B 02		