

# **Search Standards By User**

**Source: IPR**

**Cycle: Instructional Program Review 2016-17**

**User Name: Lead Faculty, Radiologic Technology**

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Response Types: All Responses Types

1	<b>Executive Summary</b>
0	Executive Summary

Summarize your program's strengths, opportunities, challenges, and action plans. This information will be presented to the Board of Trustees. [1000 word limit]

## Response Detail

No Response Information to Display

## Narrative

### Program Strengths:

1. The curriculum is logically organized in such a way to lay a strong foundation for future courses.
2. We provide an in depth look at key aspects of the radiologic technology including; communication skills, critical thinking, radiation physics, protection and effects, radiographic positioning and image creation.
3. Our curriculum provides a well-rounded clinical experience which includes pediatric, high volume outpatient clinics and general hospital. This applied knowledge allows the student to practice in any hospital environment.
4. Providing laboratory experience on campus with two non-producing x-ray units and one producing x-ray unit allows students more individualized practice.
5. All courses have a critical thinking component that prepares students for their future career in radiologic technology.
6. Our graduates maintain contact with the program officials and indicate appreciation for their education and provide valuable feedback.
7. Our relationship with our clinical affiliates/partners is very strong as evident by the support they provide to our students on a daily basis. They mentor and coach Cañada students to become well-rounded technologists and have provided the program with equipment to en-hance student learning.

The strength of the curriculum is further demonstrated by our retention rate, the California De-partment of Public Health, Radiation Health Branch Fluoroscopy and Mammography examina-tion results and the American Registry of Radiologic Technologists national examination results.

### Program Challenges:

1. There is no level one trauma facility (major emergency center) in San Mateo County, therefore the program has no affiliation with such a facility.
2. Students have shown to have greater academic difficulty during the Spring Semester of both the first and second year.
3. The program has found the students are weak in anatomy. Prerequisite requires this class to be taken within the past 3 years. By the second year in the program, it is up to 5 years since students have completed anatomy.
4. There is a substantial increase in the clerical requirements of both the program coordinator/faculty and clinical coordinator/faculty. This increase was recognized by the program's ac-crediting agency, The Joint Review Committee in Radiologic Technology (JRCERT) during the program's onsite visit and we were found in non-compliance with Standard 2, Section 4.
5. Concern with maintaining affiliation with Kaiser Facilities due to aggressive courtship of their own Radiologic Technology Program based in Richmond. In 2014 we lost our affiliation to the out-patient Kaiser Clinic in Mountain View and Foothill College Radiologic Technology Program lost their affiliation to Kaiser Santa Clara Hospital.

### Program Action Plans:

1. A partial solution is to incorporate simulated trauma situations in our lab experience. Last year we requested for a trauma PIXY radiographic phantom, unfortunately our request was not approved. This year we will ask for it again and hopefully it will be approved.
  2. In 2015 RADT 420 and RADT 430 were changed from 2 days per week to 3 days per week. We will look at data and see if the changes were effective..
  3. Comprehensive anatomy review in RADT 410 was incorporated during the fall of 2014.
  4. A clerical position was approved in 2016 and it has been of immense help to the program. Unfortunately, the person who was helping us has transfer to another department, where she was offered a full time position with benefits. Thus we are in the process of replacing her.
  5. The program has maintained positive relationship with staff and radiology management, our intent is to continue and look for ways to improve this relationship.
- Decisions on hospital affiliations come from upper management to whom we have no relation-ship.

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## Suggested Follow Ups

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No Suggested Follow Ups to Display

## 2 Program Context

### 1 Mission

Identify how your program aligns with the college's mission by stating which categories of courses you offer: Career Technical, Basic Skills, Transfer, and/or Lifelong Learning. If your program has a mission statement, you may include it here.

## Response Detail

No Response Information to Display

## Narrative

**Career Technical ?Basic Skills ?Transfer ?Lifelong Learning**

**Mission statement:**

**The mission of the Radiologic Technology program at Cañada College is to provide a high quality vocational education to members of our diverse community who seek a career in the radiologic technology profession. The Radiologic Technology Program enables students to develop skills necessary for employment in the medical care community and provides a professional labor pool to match the needs of the community.**

## Suggested Follow Ups

Date	Suggested Follow Up
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No Suggested Follow Ups to Display

### 2 Articulation

Are there changes in curriculum or degree requirements at high schools or 4-year institutions that may impact your program? If so, describe the changes and your efforts to accommodate them. If no changes have occurred, please write "no known changes".

## Response Detail

No Response Information to Display

## Narrative

**The Radiologic Technology Program has an articulation agreement with California State University, Northridge.**

## Suggested Follow Ups

Date	Suggested Follow Up
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No Suggested Follow Ups to Display

### 3 Community and Labor Needs

Are there changes in community needs, employment needs, technology, licensing, or accreditation that may affect your program?. If so, describe these changes and your efforts to accommodate them. If no changes have occurred, please write "no known changes". CTE programs: identify the dates of your most recent advisory group meeting and describe your advisory group's recommendations for your program.

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## Narrative

During 2016 we canceled the Advisory Committee meetings because of very low participation; Consequently, we decided to use the information and advised obtained during our Clinical Instructors' meetings. Program's officials checked with the JRCERT (the national accrediting agency for radiologic technology schools) and they agreed we can use the information obtained during the monthly clinical instructors' meetings.

**Community Needs:** With the aging baby boomers in San Mateo County and the country as a whole, it is expected that they are going to require more medical care. There is already an increase in chronic diseases such as: heart disease, diabetes, arthritis, high blood pressure, etc. In addition, the elderly population are also prone to bone fractures cause by osteoporosis, overweight by inactivity, etc. As a result, this growing segment of the population will require more assistance and more imaging professional to diagnose and treat their medical conditions.

**Employment needs:** Although hospitals will remain the main employer of radiologic technologists, a number of new jobs will be in physicians' offices and in imaging centers. Employment in these healthcare settings is expected to increase because of the shift toward outpatient care whenever possible. Outpatient care is encouraged by third-party payers as a cost-saving measure and is made possible by technological advances, such as less expensive equipment, which allow for more procedures to be done outside of hospitals.

**Technology:** Health care and specifically imaging technologies have evolved dramatically the last few years, changing from analog film to digital systems. This evolution affects how and what we teach our students. To be able to stay current, our faculty regularly attend conferences and seminars, but more importantly most members of our faculty work in health care, where they are exposed to new technologies, new equipment and overall new trends.

**Licensing and Accreditation:** On June 29, 2016 the program was awarded a three year extension to our five year accreditation by the Joint Review Committee in Radiologic Technology (JRCERT). Thus the program is accredited until 2021.

The program is also licensed by the California Department of Public Health, Radiologic Health Branch and this is a year to year licensing.

## Suggested Follow Ups

Date	Suggested Follow Up
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No Suggested Follow Ups to Display

3	Looking Back
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4	Curricular Changes
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List any significant changes that have occurred over the prior two years in your program's curricular offerings, scheduling, or mode of delivery. Explain the rationale for these changes.

## Response Detail

No Response Information to Display

## Narrative

No significant changes have occurred in the program's curricular offerings, scheduling or mode of delivery in the last two years.

## Suggested Follow Ups

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## 5.A. Progress Report - IPC Feedback

Provide your responses to all recommendations received in your last program review cycle.

### Response Detail

No Response Information to Display

### Narrative

The program has not received any recommendation to date.

### Suggested Follow Ups

Date	Suggested Follow Up
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No Suggested Follow Ups to Display

## 5.B. Progress Report - Prior Action Plans

Provide a summary of the progress you have made on the strategic action plans identified in your last program review.

### Response Detail

No Response Information to Display

### Narrative

The program has not received any recommendation to date.

### Suggested Follow Ups

Date	Suggested Follow Up
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No Suggested Follow Ups to Display

## 6.A. Impact of Resource Allocations

Describe the impact to-date that new resources (equipment, facilities, research) requested in prior years' program reviews have had on your program. If measurable impacts on student success have been observed, be sure to describe these and include any documentation/evidence. If no resources have been recently requested, please write ?not applicable?.

### Response Detail

No Response Information to Display

### Narrative

In 2016, the program was approved to purchase a new quality assurance tool (RTI Cobia Flex). This device will allow us to measure radiation dose, energy, exposure time, etc. This device will help students have a better understanding of the physics and engineering of radiographic equipment. This new device will be used during labs in RADT 430 (Principles of Radiographic Film Production and Technique Formulation), RADT 435 (Imaging Equipment and Quality Control) and RADT 471 (Specialized Techniques: Fluoroscopy)

The equipment was received on January 10, 2017 and we will start using it during the spring semester 2017. We will be reporting on the impact of this equipment on our next program review.

### Suggested Follow Ups

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## 6.B. Impact of Staffing Changes

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Describe the impact on your program of any changes in staffing levels (for example, the addition, loss or reassignment of faculty/staff). If no changes have occurred, please write "not applicable".

## Response Detail

No Response Information to Display

## Narrative

A clerical position was approved in 2016 and it has been of immense help to the program. We have been able to stay on top of all the clerical needs: clinical sites onboarding documents, students' clinical hours, clinical instructors' meeting notes, providing information to prospective students, organizing students' clinical files, etc. Unfortunately, the person who was helping us has transferred to another department, thus we are in the process of finding a replacement.

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## 4 Current State of the Program

### 7 Enrollment Trends

Use the Productivity data packet to examine your enrollments (headcount, FTES, Load) and pattern of course offerings (Productivity by Courses by Semester). How have your enrollments changed? What changes could be implemented, including changes to course scheduling (times/days/duration/delivery mode/number of sections), marketing, and articulation of pathways that might improve these trends? NOTE: If other sources of data are used, please upload these documents or provide URLs.

## Response Detail

No Response Information to Display

## Narrative

**Enrollment and Load.** The enrollment and load have been consistent for the past fourteen years. The enrollment is limited by the number of clinical training sites available for students and the job market for graduates of the program. The success and retention is quite high. There is considerable competition to get into the program with 100 - 130 applications each year for the 20 spots in the class. This allows the program to select students most likely to be successful. In addition, the students move through the program as a cohort, which also improves retention and success. In addition, the scheduling of didactic classes is restricted in some degree by the number of available hours when students are on campus and not in the hospital.

**Marketing.** The program works closely with college ambassadors to promote the program within the local high schools by doing presentations at the college or at the high schools. Furthermore, the program has developed a good reputation and is able to attract applicants from our local community and also from locations such as San Francisco, Oakland, Hayward, Fremont and as far as Santa Cruz.

**Articulation.** The program has an articulation agreement with California State University, Northridge, which is the only public university in the state to offer a Bachelors' Degree in Radiologic Technology.

One possible solution to increase load would be to increase the number of continuing education courses we offer. We already offer mammography as a continuing education course and we have looked at the possibility to develop courses in fluoroscopy for x-ray technologists and physician assistants. However, to offer these courses the program needs to purchase fluoroscopy equipment and to build a fluoroscopy room with radiation safety features as mandated by the federal and state law. The request for equipment and fluoroscopy room were presented during program review in 2013 and 2014. Please note a fluoroscopy room is included in the floor plan for the new radiologic technology classroom/lab for the upcoming Science and Technology building (building 23).

## Suggested Follow Ups

### Date Suggested Follow Up

No Suggested Follow Ups to Display

### 8-A. Access & Completion

One of the goals of the College's Student Equity plan is to close the performance gaps for disproportionately impacted students. The Equity Supplement data packet indicates which groups are experiencing disproportionate impact in your program. Which gaps are most important for improving outcomes in your program? How can the college help you address these gaps? What changes could be made?

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## Narrative

Students are accepted into the Radiologic Technology Program through a "paper only" application process. The number of affiliated clinical sites (hospitals) and the number of students each clinical site can take at any given time determines the number of students accepted into the program. From the paper only application, only age can be identified from official transcripts that must be reviewed for prerequisites. Students are not identified by ethnicity during the course of the program.

1. Historically we have had a very low number of African American and Pacific Islander applying to the program. It is possible that we need to do more outreach in these populations.
2. It appears there is no difference between gender's success and retention rate over a five-year period. This is not an area that needs to be addressed
3. Success rate and retention rate have been very stable for years. The program typically accepts 20 students per year and we lose one or two students. For those that complete that program, 100% of them have passed the national examination on the first trial (last 17 years) and the job placement rate at one year after graduation has been 87.50% the last five years.
4. The Radiologic Technology curriculum is offered during the daytime only. The evening course RADT 470: Mammography is not required for the radiologic technology program and is open to all licensed technologists.

## Suggested Follow Ups

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No Suggested Follow Ups to Display

8-B. Completion - Success Online

The college has a goal of improving success in online courses. Examine the "Course Success and Retention by DE vs Non DE" data table in the "Effectiveness: Success and Retention" data packet. What significant gaps do you see in success between online/hybrid and non-online courses? What changes could be made to reduce these gaps? If your program does not offer online/hybrid courses, please write "not applicable".

## Response Detail

No Response Information to Display

## Narrative

Currently the Radiologic Technology Program does not offer any online courses.

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## 9.A. SLO Assessment - Compliance

Are all active courses being systematically assessed over a 3-year cycle? Describe the coordination of SLO assessment across sections and over time.

### Response Detail

No Response Information to Display

### Narrative

The radiologic technology program is a Career and Technical Education program and all curriculum must be updated every two years.

### Suggested Follow Ups

Date	Suggested Follow Up
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No Suggested Follow Ups to Display

## 9.B. SLO Assessment - Impact

Summarize the dialogue that has resulted from these course SLO assessments. What specific strategies have you implemented, or plan to implement, based upon the results of your SLO assessment? Cite specific examples.

### Response Detail

No Response Information to Display

### Narrative

1. Because of our SLOs assessments, laboratory exercises in RADT 435 were revised during the fall semester of 2013. We began implementing these changes during the fall semester of 2014. The new lab exercises provide students with a deeper understanding of x-ray physics and equipment operation. Since 2014, we have observed a small improvement in the ARRT national examination in sections B (Equipment Operation and Quality Control) and section C (Image Acquisition and Evaluation). With the acquisition of new quality control equipment (Standard 6-A), the labs will add another level accuracy that will ultimately broaden student knowledge.

2. Starting in the spring of 2015 the didactic hours in Radiographic Positioning II (RADT 420) and Principles of Radiation Exposure (RADT 430) have been rearranged. These courses were offered on a Monday and Wednesday (2 hours 10 minutes lectures) and because of the difficulties students had shown during the first spring semester, program officials rearranged class schedules to Monday, Wednesday and Friday (1 hour 20 minutes lectures).

Observations. In RADT 430 when comparing total scores from the cohorts of 2012 – 2014 to the cohorts of 2015 – 2016 we observed an increment in scores of approximately 3.5 percent; in addition students appear to be more engaged and enthusiastic during lectures. In RADT 420 they also look more enthusiastic; however, when comparing the cohorts of 2013 -2014 with the cohorts of 2015 - 2016 we observed a decrease in scores of 2.09 percent. One possible explanation is that the cohort of 2014 (class graduated in 2015) was an exceptionally good class.

### Suggested Follow Ups

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## 10 PLO Assessment

Describe your program's Program Learning Outcomes assessment plan. Summarize the major findings of your PLO assessments. What are some improvements that have been, or can be, implemented as a result of PLO assessment?

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No Response Information to Display

## Narrative

PLOs are assessed every year in accordance with JRCERT requirements, please see attached Assessment Plan 2015 - 2016.

The assessment plan for Program Student Learning Outcomes (PSLOs) measures Program quality through the assessment of benchmarks set by the Program. The measurement of assessments indicate three possibilities: 1) positive results encourages us to continue utilizing current methodology, 2) negative results require review of curriculum, curriculum delivery, application of measuring tool, and then we look for possible solutions; and 3) results that are difficult or impossible to measure are revised, replaced or removed.

In summary assessment's results of PSLOs are good in demonstrating strengths and weaknesses of the program.

Other data that reveals Program performance are:

1. The State of California Department of Public Health Radiologic Health Branch (RHB) Radiography examination success rate of 100%.  
<https://www.cdph.ca.gov/certlic/radquip/Documents/X-raySchoolPassRates.pdf>

2. The Program Effectiveness Data found in the program's website.

<http://www.canadacollege.edu/radtech/docs/Program%20Effectiveness%20Data%202015.pdf>

3. The American Registry of Radiologic Technologists National Comparison Report. Attached

## Suggested Follow Ups

Date	Suggested Follow Up
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No Suggested Follow Ups to Display