



## Radiologic Technology

### **Degree**

Radiologic Technology, Associate of Science

### **Certificates**

Principles of Venipuncture, Job Skills Certificate

Principles of Fluoroscopy, Job Skills Certificate

## Radiologic Technology

### Associate of Science Degree

**R**adiologic Technology is a health care profession whose practitioners work in hospitals, imaging centers, and private physicians' offices. The radiologic technologist (radiographer) is a member of the health care team who works directly with the patient and the physician performing a wide variety of diagnostic x-ray procedures. The role of the graduate radiographer may be that of staff radiographer, special imaging radiographer, supervisor, administrator or educator, depending upon the level of education and experience obtained.

The Bakersfield College Associate in Science degree Radiologic Technology Program provides concurrent didactic and clinical education. The program is 24 months in length (excluding prerequisite coursework) and begins each year in June. Students should anticipate making a full time commitment to the program during the school year. Summer sessions are required and semester/ terms may be scheduled beyond the regular college session dates. The Program is primarily scheduled during the day; however an evening clinical rotation will be completed during the second year of the program. Clinical education sites include hospitals and imaging centers located in Bakersfield, California and Delano, California. Students may be assigned to any clinical education center in any geographical location and must provide their own transportation to these centers.

The program provides the theory, skill and experience necessary to apply for admission to the licensure exam administered by the American Registry of Radiologic Technologists; and for certification from the State of California, Department of Public Health, Radiologic Health Branch, as a Certified Radiologic Technologist. The student is also eligible to write the State Fluoroscopy Permit exam. Students must earn a minimum grade of 'C' in all radiography courses, have met the State mandated curriculum and clinical hours, met all clinical education competencies and earned the Associate in Science degree to be recommended for these examinations/certifications. For program information, brochure and enrollment application form, consult the following website at [www.bakersfieldcollege.edu/allied-health/radtech](http://www.bakersfieldcollege.edu/allied-health/radtech).

#### Program Mission

The mission of the Bakersfield College Radiologic Technology Program is to promote student success by providing quality instruction for graduates to competently practice radiography at the entry level

#### Program Learning Outcomes

Upon successful completion, the student will:

1. be clinically competent.
  - apply positioning skills.
  - select exposure factors.
  - utilize radiation protection.
  - demonstrate and employ knowledge of equipment operation.
2. develop critical thinking skills.
  - demonstrate the ability to formulate technical factors.
  - adapt standard procedures for non-routine patients.
  - demonstrate independent judgment.
  - critique images to determine diagnostic quality.
3. communicate effectively.
  - demonstrate effective communication.
  - use correct pronunciation.
4. model professionalism.
  - demonstrate knowledge of professional imaging organizations.
  - summarize the value of life-long learning.
  - demonstrate work ethics.
5. the Program will graduate entry-level radiographers.
  - Program graduates will pass the ARRT exam on the 1st attempt.
  - Graduates seeking employment will obtain employment within 12 months of graduation.
  - Students will successfully complete each course.
  - Students will successfully complete the program.
  - Graduates will be satisfied with their education.
  - Employers will be satisfied with graduate performance.

#### Requirements for the Radiologic Technology (AS) program: Enrollment Procedures and Application Filing Period

Application forms and all required documents must be received by the Radiologic Technology Program Office during the application month of February. Late applications will not be accepted.

#### Application Procedures:

It is the student's responsibility to ensure that the following items are completed prior to the end of the application period held in the month of February:

- Complete required prerequisite courses (see list).
- Obtain application form from the Allied Health Department located in Room 178 of the Math-Science Building on the main campus, or on the [Allied Health website](#).
- Arrange for an official copy of your high school transcript to be mailed directly to the: Radiologic Technology Program, Bakersfield College, 1801 Panorama Drive, Bakersfield, CA 93305. An official copy of High School Equivalency (GED) is required if your high school transcript does not identify graduation.
- If you are a Bakersfield College Student with no college courses other than BC courses: Provide the Program with an unofficial Bakersfield College transcript from the college website or an unofficial transcript from the Admissions & Records Office.
- If you have taken courses from any college other than Bakersfield College:
  - Apply for admission to Bakersfield College either in person or online at [www.bakersfieldcollege.edu](http://www.bakersfieldcollege.edu) and click on Admissions & Records. Follow the information under Enrolling.
  - Have your college transcript(s) evaluated by: Ordering an Official copy of your transcripts from your previous college(s);
  - Submit the Official copy of your transcripts along with a form "Request for Evaluation". You can obtain this form from the Admissions and Records office or from the Admissions and Records web-page.
- Once your transcripts have been evaluated and posted to your Bakersfield College transcripts, either order an official copy to be sent from the Admission and Records office or print your

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unofficial transcript and submit along with the Application Form to the Radiologic Technology Program during the application filing period during the month of February. If you have taken courses from Porterville or Cerro Coso Community College, you only need to submit the “Request for Evaluation” form. You do not need official copies of transcripts from Porterville or Cerro Coso Community College

- Late application materials will not be considered for the current application period. Applicants are responsible for ensuring that their application is complete. The Program is not responsible for late materials or incomplete applications. The application must be thoroughly complete and signed to be considered for eligibility.
- Students on the waitlist must reapply annually during the enrollment month of February. This is required every year to keep the applicant’s file current. If the student does not reapply, the student will be removed from the waitlist.

#### **Conditional Enrollment:**

As a condition of enrollment in any Allied Health Program, students are required to submit to and pass a designated background check. Every student offered space in the program will be required to submit to a background screening as part of his or her clinical requirements for admission.

Please note the following:

- A Physical examination will be required after the students receive notification of enrollment into the program to demonstrate that a student meets the technical standards necessary to meet the objectives of the program. A copy of the Essential Technical Standards required for Radiologic Technologists may be obtained in the Allied Health Division Office located in the Math-Science building, room 178 or on the program website at [www.bakersfieldcollege.edu/allied-health](http://www.bakersfieldcollege.edu/allied-health).
- As a condition of enrollment to the Radiologic Technology Program, all students are required to submit to and pass a designated drug and alcohol screen.
- A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render student ineligible for clinical placement, as determined by the clinical agencies.
- If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program. In the event that a student cannot obtain a background clearance, the space will be forfeited. Students who are found to be ineligible for clinical placement by the clinical agency after admission to the program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.
- Immunizations/health tests are needed for acceptance in a clinical education center and to protect the health and welfare of the student and community. Immunizations may include, but not be limited to, rubella, varicella, Hepatitis B, and Tuberculosis screening and the seasonal flu vaccine is also required.
- The medical exams, drug/alcohol screens, background screen, immunizations and tests are performed at the expense of the student.

- The student must possess a current Basic Life Support/CPR (cardiopulmonary resuscitation) card by the American Health Association (Healthcare Provider card). This card must be provided at the start of the program and be kept valid during the entire 24-month program.

#### **General Education Requirements:**

General education courses are required to graduate from the Bakersfield College Associate in Science Degree Radiologic Technology Program. It is suggested that these courses be completed prior to program enrollment. Refer to the Bakersfield College General Education and Graduation Requirements in the Graduation Requirements in the college catalog ([www.bakersfieldcollege.edu](http://www.bakersfieldcollege.edu)) for more specific information and requirements for the college (the list below does NOT identify all requirements). All students are encouraged to regularly check the college requirements for graduation and/or meet with a Counselor to ensure that AS degree requirements will be met at the end of the Radiography Program. Completion of the AS Degree is required to meet eligibility requirements for certification and licensure. Courses must be completed with a “C” grade or better

- Oral Communication (3 units); COMM B1 recommended; Any course listed in Area A.1 of the Gen Ed Pattern in BC Catalog
- Written Communication (3 units); ENGL B1A– prerequisite course
- Physical Universe and Life Forms (6 units)
- Natural Sciences (4-8 units); BIOL B18 or BIOL B32 & BIOL B33 (prerequisite course)
- Mathematics and Logic (3-5 units); MATH B70 (5 units) -prerequisite course.
- Arts, Literature, Philosophy, and Foreign Language (3 units); PHIL B12 recommended or any course in Area C: Gen Ed Pattern in the BC Catalog
- Social, Political, Legal and Economic Institution & Behavior, Historical Background (6 units)
- Foundations in the Behavioral Sciences (3 units); Any course listed in Area D.1 of the Gen Ed Pattern in the BC Catalog *or* Foundations in the Social Sciences (3 units); Any course listed in Area D.2 of the Gen Ed Pattern in the BC Catalog *and* American (U.S. Institutions) (3 units); Any course listed in Area D.3 of the Gen Ed Pattern in the BC Catalog
- Lifelong Understanding and Self-Development (4 units)
- Physical Education 1 unit required from PHED courses listed in the BC catalog. (Rad Tech students are exempt from the 3 unit course in the lifelong understanding development category)
- Educational Planning; STDV B1 recommended or any course listed in the BC Catalog General Requirements (Recommended to be taken during the first semester of courses at BC to assure priority registration.)
- Computer Studies (3 units); COMP B2 or COMP B5 or equivalent is necessary to meet Radiologic Technology Program completion

#### **Radiologic Technology Program Prerequisite Requirements**

All prerequisite coursework must be completed prior to applying for the Radiologic Technology Program. Students are strongly

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encouraged to complete prerequisite courses prior to enrolling in general education courses. This will improve a student's opportunity to apply for program enrollment. The following prerequisite courses must be completed with a C grade or higher.

- BIOL B18 (Essentials of Anatomy and Physiology)  
or  
BIOL B32 (Human Anatomy and Physiology I)  
and  
BIOL B33 (Human Anatomy and Physiology II)  
or  
Equivalent course(s) at another accredited college.  
*Note: BIOL B14 (Human Anatomy) and BIOL B15 (Human Physiology) were previously taught at Bakersfield College and they meet this requirement.*
- MATH BD/B70 (Intermediate Algebra-5 units) at Bakersfield College or equivalent course at another accredited college. A higher level college math course will be accepted in lieu of this algebra requirement.
- MEDS B60 (Medical Terminology - 3 units) at Bakersfield College or equivalent course at another accredited college.
- ENGL B1A (Expository Composition - 3 units); or an equivalent course at another accredited college.
- Minimum cumulative grade point average of 2.7 with MATH BD/B70 passed on the first attempt;  
or  
Minimum cumulative grade point average of 2.9 with MATH BD/B70 passed on the second attempt.  
*Note: All course attempts including grades of 'D', 'F' and withdrawals (W) are included in the review of the course attempts. Students with more than two math attempts are not initially eligible for the program. In addition, for students who use a higher level math course in lieu of Intermediate Algebra these same requirements for minimum cumulative grade point average and course attempts apply in order to meet program prerequisites.*

#### Remediation Plan:

Students who do not initially meet the eligibility requirement for passing the MATH BD/MATH B70 prerequisite within two attempts must complete all of the following remediation requirements to be considered eligible to apply for the Radiologic Technology Program.

- Completion of ACDV B70A-B70F- Study Skills courses with a grade of 'B' or better
- Completion of MATH B22 Elementary Probability and Statistics with a minimum grade of 'C' on the first course attempt
- Successful completion of the Remediation Program must be completed within 1 year of initial application to the program. Students who do not meet the grade point average (GPA) eligibility requirement of either 2.7 or 2.9 are advised to research and complete, if applicable, an Academic Renewal request through the Bakersfield College established process identified in the college catalog for a recalculation of their GPA. Documentation of completion of the remediation plan must be submitted to the Program at the time of application. Documentation is made through college transcripts.
- Graduation from high school or an equivalent education.

#### Estimated Program Costs (Gainful Employment):

Students will be required to purchase uniforms, textbooks, and supplies, pay current college fees and provide transportation to off campus clinical education centers in Bakersfield, California and Delano, California. For information on Estimated Program Costs, please visit our [Radtech website](#):

#### Licensure/Certification Eligibility

The American Registry of Radiologic Technologists (ARRT) requires review of any conviction, misdemeanor or felony, or a sanction by the Program regarding an academic honor code, or review of suspension or dismissal by a radiography program and review of licensure suspension, denial or other disciplinary action by a regulatory authority or certification board other than the ARRT. This review may be conducted prior to or during the program. For more information contact the ARRT at: 1225 Northland Drive, Mendota Heights, MN 55120, (651) 687-0048, or [www.arrt.org](http://www.arrt.org). The State Department of Public Health, Radiologic Health Branch and the American Registry of Radiologic Technology requires possession of either a Social Security number or Taxpayer ID number to apply for licensure and/or registration.

#### Accreditation

Bakersfield College is accredited by the Western Association of Schools and Colleges. The Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182, (312) 704-5300 or [www.jrcert.org](http://www.jrcert.org). The program is also approved by the State of California, Department of Public Health, Radiologic Health Branch, P.O. Box 997414, MS- 7610, Sacramento, CA , 95899-7414, (916) 327-5106 or [www.cdph.ca.gov/rhb](http://www.cdph.ca.gov/rhb).

#### Career Opportunities:

The AS Degree Radiologic Technology prepares graduates for both State licensure and national certification in radiography. Employment outlook is excellent for radiographers with a median salary of \$32/hr for Kern and Tulare Counties (2015) with an 8.6% increase in projected openings from 2016-2021.

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The following courses are taken after students have been enrolled in the Radiologic Technology Program. To Achieve the Associate in Science Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Radiologic Technology Associate in Science degree.

More information can be found on the [Allied Health website](#) or in the Bakersfield College Allied Health Office, MS 178.

#### To Achieve the Associate of Science Degree

Upon completion of graduation requirements and the required degree courses with at least a 'C' grade in each course, the student will be awarded a Radiologic Technology Associate of Science Degree.

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#### Total Units: 63.5

##### Required Courses

##### First Summer Semester

Course #	Name	Units
RADT B1A	Introduction to Radiologic Technology	2.0
RADT B1B	Patient Care	2.0
RADT B4A	Introduction to Clinical Education	1.5

##### First Fall Semester

Course #	Name	Units
RADT B2A	Radiographic Anatomy and Positioning 1	3.0
RADT B3A	Radiographic Principles 1	3.0
RADT B4B	Clinical Education 1	4.0
RADT B12	Radiobiology and Radiation Protection	2.0

##### First Spring Semester

Course #	Name	Units
RADT B2B	Radiographic Anatomy and Positioning 2	3.0
RADT B3B	Radiographic Principles 2	3.0
RADT B6	Clinical Education 2	5.0
	General Education (if needed)	3.0

##### Second Summer Semester

Course #	Name	Units
RADT B7	Clinical Education 3	6.5

##### Second Fall Semester

Course #	Name	Units
RADT B2C	Radiographic Anatomy and Position 3	3.0
RADT B5	Radiation Physics	3.0
RADT B10	Clinical Education 4	7.0

##### Second Spring Semester

Course #	Name	Units
RADT B9A	Sectional Anatomy for Medical Imaging	3.0
RADT B11	Radiographic Pathology	2.0
RADT B30	Principles of Venipuncture	1.0
RADT B13	Clinical Education 5	6.5

*Note: The clinical components of all radiologic technology courses are graded on a Pass/No Pass basis only. Radiologic Technology students are exempt from the maximum of three Pass/No Pass units which may be taken in a semester and from the maximum of 12 Pass/No Pass units which may be applied toward the AS degree at Bakersfield College.*

## Principles of Venipuncture Job Skills Certificate

The purpose of this certificate is for successful completion of the Principles of Venipuncture course taught at Bakersfield College. The venipuncture regulations and requirements are part of the Health and Safety Code of California, Section 106985. The certificate is necessary for job readiness and to indicate competency for the performance of venipuncture at the job site. The State of California code requires a certificate to indicate proficiency. The certificate is part of the Career and Technical Education program which prepares students for employment in medical imaging and permits individuals to administer contrast media for x-ray examinations as part of their job as a radiologic technologist.

### Prerequisite

Current Cardiopulmonary Resuscitation, Healthcare Provider Card.

### Program Learning Outcomes

Upon successful completion, the student will:

- demonstrate competency by successfully performing venipuncture techniques on humans in the laboratory setting.

### Career Opportunities:

The Venipuncture Job Skills Certificate permits Certified Radiologic Technologists (CRT's) to perform venipuncture at their job site. Median salary is \$32/hr for Kern and Tulare Counties.

### To Achieve the Job Skills Certificate

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Principles of Venipuncture Job Skills Certificate.

### Total Units: 1.0

#### Required Courses

Course #	Name	Units
RADT B30	Principles of Venipuncture (offered spring semester only)	1.0

## Principles of Fluoroscopy Job Skills Certificate

This certificate provides fluoroscopy skills for students completing the Associate in Science Radiologic Technology program. The certificate is required as proof of completion to meet the regulations specified by the California Code of Regulations, Title 17: Public Health, Article 8: Additional School Requirements and Record Keeping, Section. 30437. The certificate is part of the Career and Technical Education program which prepares students for State licensure which is necessary for employment in the field of x-ray technology.

### Program Learning Outcomes

Upon successful completion, the student will:

- employ appropriate radiation protection practices for patients and themselves.
- competently perform radiographic positioning.

### Career Opportunities:

The Fluoroscopy Job Skills Certificate permits Certified Radiologic Technologists (CRT's) to perform fluoroscopy at their job site. Median salary is \$32/hr for Kern and Tulare Counties

### To Achieve the Job Skills Certificate

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Principles of Fluoroscopy Job Skills Certificate. This certificate provides fluoroscopy skills for students completing the Associate in Science Radiologic Technology program. .

### Total Units: 24.5

#### Required Courses

Course #	Name	Units
RADT B2A	Radiographic Anatomy and Positioning 1	3.0
RADT B2B	Radiographic Anatomy and Positioning 2	3.0
RADT B2C	Radiographic Anatomy and Positioning 3	3.0
RADT B3A	Radiographic Principles 1	3.0
RADT B3B	Radiographic Principles 2	3.0
RADT B4A	Introduction to Clinical Education	1.5
RADT B5	Radiation Physics	3.0
RADT B9A	Sectional Anatomy for Medical Imaging	3.0
RADT B12	Radiobiology and Radiation Protection	2.0