

Definition

The radiologic technology program prepares students to perform diagnostic imaging competently at the entry level. Radiologic technologists are also known as x-ray technicians.

Staff

To access faculty and staff, dial (661) 722-6300, then the 4-digit extension.

Program Advisement:

Dr. Karen Cowell, Dean ext. 6402

Program Coordinator:

Karen Smith ext. 6402

Faculty:

Maria Kelly ext. 6983

Adjunct Faculty:

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V.M.

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Program Description

The Antelope Valley College Radiologic Technology Program provides vocational education that leads to an associate in science degree. Students learn the knowledge, skills and attitudes that will enable them to take the national licensure exam for radiology technology and gain employment in the field.

Students must receive a grade of “C” or better in all required core courses and the specific courses listed as program electives in order to qualify for the degree. A certificate is not offered.

Program Mission

The mission of the Antelope Valley College Radiologic Technology program is to serve the community by providing an educational setting for the development of knowledge, skills and professional behaviors essential for a foundation and career advancement in radiologic technology sciences.

Program Goals

The Radiologic Technology program attempts to fulfill its mission by preparing graduates to:

1. Competently perform radiographic procedures.
2. Effectively communicate.

3. Use critical thinking and problem solving skills.
4. Evaluate the importance of professional growth and development.
5. Receive an Associate in Science degree in radiologic technology and be eligible to take national and state certification examinations.

Distinctive Features

The radiologic technology program meets the standards of Title 17 of the California Code of Regulations. Students will be required to complete 570 hours of classroom instruction and 2000 hours of laboratory and clinical instruction. Therefore, students should expect to be in class or clinic four to five days per week during the summer, fall, intersession and spring semesters. The course of study leads to an Associate in Science Degree. The program is accredited by the Joint Review Committee on Education in Radiologic Technology.

Career Options

Radiologic Technologist

Certificate Program

Certificate not applicable.

Associate Degree

Radiologic Technology Program

PREREQUISITES

Students who are applying to enroll in the radiologic technology program must meet the following prerequisites:

1. Graduation from a United States high school or an approved equivalent.
2. Freedom from communicable disease as verified by a licensed physician or certified nurse practitioner. Other health conditions that could impair a student’s ability to perform the essential functions of a radiologic technology student will be examined on a case-by-case basis. Final acceptance into the program will depend on the results of the physical examination.
3. Completion of: **units**
BIOL 201, Gen. Human Anatomy 4
BIOL 202, Gen. Human Physiology 4

ENGL 101, Academic Composition 3

NOTE: The three prerequisite courses must be completed with a grade of “C” or better and grades must be posted on the official college transcript when the “Verification of Prerequisites” packet is submitted.

ENROLLMENT PROCEDURE FOR ALL STUDENTS

All items in the process must be submitted together.

- Obtain the “Verification of Prerequisites” form for the radiologic technology program from the Health Sciences Program Coordinator.
- Submit one set of official high school transcripts (or GED results) and college transcripts showing completion of the three prerequisite courses to the Health Sciences Division with the program enrollment form. (Transcripts/GED results must be received in sealed, unopened envelopes.) Another set of transcripts should be sent to the transcript office. It is the student’s responsibility to contact the high school and college(s) attended for official transcripts. The student should contact educational institutions early in the enrollment process.

NOTE: Foreign transcripts of high school and college work must be evaluated for equivalency to United States education by an accredited credentials evaluation service. Subject and grade listing are required for college work. **The high school evaluation must state that the student has the equivalent of a 12th grade high school graduation in the United States.** A list of credentials evaluation services is available from the Office of Admissions and Records or the Health Sciences Program Coordinator.

- Submit an Education Planning and Evaluation Form provided by an AVC counselor. The counselor will evaluate progress toward graduation requirements and courses from other colleges for equivalency to AVC courses. Contact the Counseling Department for an appointment.
- Students transferring science courses should consult with a counselor and

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the dean. Not all science courses are equivalent to those at AVC.

Submission of a "Verification of Prerequisites" packet does not guarantee acceptance into the program. Incomplete packets will not be considered.

SELECTION PROCEDURE

1. "Verification of Prerequisite" packets are accepted on a first-come, first-served basis. Students will be enrolled in the program in numerical order until each class is filled. Students are advised of acceptance or non acceptance by mail. **The student is responsible for informing the Health Sciences Program Coordinator of any change of address and/or telephone number.**
2. A physical examination will be required after conditional acceptance into the program. The purpose of the examination is to ensure the absence of communicable disease and to ensure that the student is not adversely affected by physical and/or mental illness that may endanger the health and safety of a patient. Students will be required to submit evidence of the following immunizations: measles, mumps, rubella, chicken pox, Tdap (as an adult), annual seasonal flu vaccine, and hepatitis B. These immunizations are required by facilities where students will have clinical experiences. Antelope Valley College does not provide these immunizations. A drug screening is required
3. Students are required to have background screening for felonies, misdemeanors, fraud and abuse, sexual crimes, and social security number verification. Information on how to obtain background screening will be given to students with acceptance packets.
4. Students are required to purchase personal liability insurance. Information about personal liability insurance will be sent to students with the acceptance letter.

Completion of an educational program in radiologic technology does not guarantee that a certificate to practice diagnostic imaging will be granted by the Radiologic Health Branch or the American Registry

of Radiologic Technologists.

Required Prerequisite: (11 units)

BIOL 201, General Human Anatomy (GE requirement Area A)	4
BIOL 202, General Human Physiology	4
ENGL 101, Academic Composition (GE requirement Area D-1)	3

Recommended Plan of Study

First Summer Semester	units
RADT 101, Introduction to Radiologic Technology	2
RADT 102, Patient Care in Radiology	2
PSY 101, General Psychology (GE requirement Area B)	3
Total	7

First Fall Semester	units
RADT 103, Radiographic Positioning and Procedures I	9
RADT 104, Radiographic Principles I	3
MATH 102, Intermediate Algebra (GE requirement Area D-2)	4
Total	16

Intersession	units
RADT 106, Radiographic Clinical Practicum IA	2
Course from GE requirement Area C	3
Total	5

First Spring Semester	units
COMM 103, Process of Communication (GE requirement Area E)	3
RADT 107, Radiographic Positioning and Procedures II	11
RADT 108, Advanced Principles of Exposure	3
RADT 109, Radiation Physics	3
Total	20

Second Summer	units
RADT 201, Radiographic Clinical Practicum III	6
Total	6

Second Fall Semester	units
RADT 202, Radiographic Pathology	10
RADT 203, Fluoroscopic Imaging & Radiation Protection	3
RADT 204, Principles and Applications of Cross-Sectional Anatomy in Imaging	3
RADT 210, Principles of Venipuncture for Radiology	1
Total	17

Second Spring Semester	units
RADT 207, Advanced Radiographic Procedures	10
RADT 208, Radiographic Certification Preparation	4
Course from GE requirement Area F	3
Total	17

Degree Total 99 Units

TRANSFER STUDENTS:

Students wanting to transfer from a radiologic technology program in another college should contact the program director or dean for information.

Transfer

Not a transfer major. Some courses may be transferrable to baccalaureate programs in radiologic technology or as general electives. Students who are interested in transfer options should meet with a counselor or consult the Transfer Center.

Prerequisite Completion

If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of "A," "B," "C" or "P". Classes in which the Pass/No Pass option is available are indicated with an asterisk (*) before the course title. See "Pass/No Pass Option" in the catalog for full explanation.

Radiologic Technology Courses

RADT 101 INTRODUCTION TO RADIOLOGIC TECHNOLOGY

2 units

36 hours total

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of BIOL 201, BIOL 202, and ENGL 101 with a grade of "C" or better.

Corequisite: Concurrent enrollment in

RADT 102.

This course includes orientation to the role of the radiologic technologist. The course includes medical use of radiation, ethics, history of radiology, hospital and department operations, and program policies and regulations. (CSU, AVC)

RADT 102 PATIENT CARE IN RADIOLOGY

2 units

36 hours total

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of BIOL 201, BIOL 202, and ENGL 101 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 101.

This course introduces basic concepts and skills that are essential for safe patient care in the field of radiography. (CSU, AVC)

RADT 103 RADIOGRAPHIC POSITIONING AND PROCEDURES I

9 units

2 hours lecture weekly

390 hours total clinic

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 101 and RADT 102 with a grade of "C" or better, and Eligibility for MATH 102.

Corequisite: Concurrent enrollment in RADT 104.

This course provides beginning theory, lab, and clinical practice in radiographic positioning and procedures of the respiratory system, bony thorax, lower and upper extremities and related joints, and abdominal cavity. Portable and trauma radiography are included. (CSU, AVC)

RADT 104 RADIOGRAPHIC PRINCIPLES I

3 units

3 hours weekly

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 101

and RADT 102 with a grade of "C" or better, and Eligibility for MATH 102.

Corequisite: Concurrent enrollment in RADT 103.

This course introduces principles of x-ray image creation, basic radiation protection, exposure factors, beam restriction, and radiation absorption. Accessory supplies and equipment, grids, image receptors, image processing, sensitometry, and digital radiography are also covered. Photographic and geometric factors that contribute to quality and detail will be discussed. (CSU, AVC)

RADT 106 RADIOGRAPHIC CLINICAL PRACTICUM IA

2 units

112 hours total

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 103, and RADT 104 with a grade of "C" or better, and Eligibility for MATH 102.

This course provides supervised practice in clinical settings to improve skills in basic radiographic procedures. (CSU, AVC)

RADT 107 RADIOGRAPHIC POSITIONING AND PROCEDURES II

11 units

3 hours lecture weekly

408 hours total clinic

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 106 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 108 and RADT 109.

This course provides theory, laboratory, and clinical practice in positioning for the skull, facial bones, and contrast procedures for the gastrointestinal and genitourinary tracts. (CSU, AVC)

RADT 108 ADVANCED PRINCIPLES OF EXPOSURE

3 units

3 hours weekly

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 106 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 107 and RADT 109.

This course provides advanced analysis of the principles of radiologic technique and their applications in the clinical settings. Students learn to calculate changes in technical factors and their effects on image production and quality. (CSU, AVC)

RADT 109 RADIATION PHYSICS

3 units

3 hours weekly

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 106 and MATH 102 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 107 and RADT 108.

This course is designed specifically for students enrolled in the radiologic technology program. It focuses on electromagnetic energy, radiation production, radiation interaction, and radiation characteristics. Factors contributing to the construction and proper operation of x-ray equipment and electronics will be emphasized. (CSU, AVC)

RADT 201 RADIOGRAPHIC CLINICAL PRACTICUM III

6 units

320 hours total

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 107, RADT 108 and RADT 109 with a grade of "C" or better.

Supervised clinical experiences are provided to perfect skills in a variety of radiographic procedures. Students will have opportunities to enhance basic

skills, positioning techniques, patient care, and clinical operations. (CSU, AVC)

RADT 202 RADIOGRAPHIC PATHOLOGY

10 units

3 hours lecture weekly

385 hours total clinic

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 201 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 203, RADT 204 and RADT 210.

This course provides an introduction to advanced pathological conditions. Normal radiographic anatomy is differentiated from pathologic conditions. Students participate in supervised clinical practice. (CSU, AVC)

RADT 203 FLUOROSCOPIC IMAGING AND RADIATION PROTECTION

3 units

3 hours weekly

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 201 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 202, RADT 204 and RADT 210.

This course provides an introduction to the fluoroscopic imaging system and methods of reducing public and occupational doses of radiation. The course prepares students for national certification and the California Fluoroscopy Permit Exam. (CSU, AVC)

RADT 204 PRINCIPLES AND APPLICATIONS OF CROSS-SECTIONAL ANATOMY IN IMAGING

3 units

3 hours weekly

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 201 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 202, RADT 203, and RADT 210.

This course includes cross-sectional anatomy and relationships of human organs to each other as the organs appear in the sagittal, coronal, and axial planes. Practical applications of cross-sectional anatomy in computerized tomography, magnetic resonance imaging, mammography, and ultrasound will be emphasized. (CSU, AVC)

RADT 207 ADVANCED RADIOGRAPHIC PROCEDURES

10 units

3 hours lecture weekly

385 hours total clinic

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 202, RADT 203, RADT 204 and RADT 210 with grades of "C" or better.

Corequisite: Concurrent enrollment in RADT 208.

This course provides the advanced radiography student with a survey of advanced imaging and an introduction to other specializations in radiation sciences. An introduction to special invasive procedures is also included. (CSU, AVC)

RADT 208 RADIOGRAPHIC CERTIFICATION PREPARATION

4 units

4 hours weekly

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 202, RADT 203, RADT 204 and RADT 210 with grades of "C" or better.

Corequisite: Concurrent enrollment in RADT 207.

This course consists of a review of subjects that are critical for the American Registry of Radiologic Technologists examination and the California certification examination. (AVC)

RADT 210 PRINCIPLES OF VENIPUNCTURE FOR RADIOLOGY

1 units

18 hours total

Limitation on Enrollment: Formal admission to Radiologic Technology Program.

Prerequisite: Completion of RADT 201 with a grade of "C" or better.

Corequisite: Concurrent enrollment in RADT 202, RADT 203 and RADT 204.

This course provides basic instruction and practice of venipuncture theory and methods for the administration of contrast agents. It meets California Health and Safety Code, Section 106985, pertaining to Certified Radiologic Technologists performing venipuncture. (AVC)