

Radiologic Technology Program

Program Information

The mission of the radiologic technology program is to provide general and basic science education, combined with a sound foundation in the theory and art of radiologic technology to meet the educational goals of the students. This is evidenced by a competency-based program employing various teaching methodologies and technologies. The graduates will have the knowledge and skills necessary to successfully take the American Registry of Radiologic Technologists Examination for Radiographers and become a member of the health care team. Once selected for the program, the students complete 24 months of educational experiences. Students are provided with 1,952 hours of clinical education experiences conducted in cooperation with departments of radiology in Reno, Sparks and Carson City. Please note: Graduates from TMCC's radiologic technology program are eligible to apply for and take the American Registry of Radiologic Technologists (ARRT) Examination for Radiographers. However, the ARRT is the only organization granting permission to take the examination. Persons with prior felony or misdemeanor convictions may be admitted to the program but may be prohibited by the ARRT from taking the examination. The ARRT will conduct a pre-application review to determine the impact of a conviction on eligibility. Pre-application Review Forms may be requested from the Department of Regulatory Services at the ARRT office, 651-687-0048.

Background Check and Drug Testing

The hospitals associated with the program require a background check and drug testing to insure the safety of the patients treated by program students. Students selected for the program will be required to comply prior to starting the program (instructions to be provided by the program coordinator after the full class is confirmed).

Admission to the Radiologic Technology Program

The radiologic technology program begins each fall semester. Admission to the program is limited and requires specific admission procedures. Students are selected by means of a formal program application and the calculation of assigned points. Applicants must be at least 17 years old.

Program Application Process

Complete the following:

1. Submit an application for admission to the college.
2. Have completed the following courses with a grade of "C" or better.
MATH 105, Math for Radiologic Technicians (or MATH 120 or higher)
ENG 101, Composition I
RAD 101, Exploration in Radiology

The following must have been completed in the past five years:

- BIOL 223, Anatomy and Physiology I and
- BIOL 224, Anatomy and Physiology II
- or
- BIOL 141 Human Structure and Function I and
- BIOL 142 Human Structure and Function II
- NURS 130, Nursing Assistant
- a) State Board of Nursing Certificate (CNA) referred but not required.
- b) Current CNA exempt from five-year course limit.
- c) Acceptable alternative documentation:
 - i. completion of EMT intermediate level or higher course.
 - ii. current certification as EMT intermediate or higher.

LTE 110, Techniques of Venipuncture

- a) Acceptable alternative documentation:
 - i. completion of EMT intermediate level or higher course.
 - ii. current certification as EMT intermediate or higher.Note: Equivalent courses from other accredited colleges are acceptable, but must be approved by TMCC. These courses must be documented through official transcripts on file with TMCC's records office before application to the program.
3. Submit official transcripts of all previous college education to records office.
4. Have a minimum grade point average of 2.7. All previous college education will be used in the computation of the GPA. Exceptions may be made by the school of sciences dean where there are extenuating circumstances and the academic work is five or more years old.
5. Submit an official transcript showing proof of high school graduation or official results of high school equivalency to admissions and records (persons with a recognized degree exempt).
6. Obtain the current radiologic technology program application from www.tmcc.edu/x-ray.

Submit the completed application to the Allied Health Office, Red Mountain 417 or mail (return receipt requested recommended) to: Radiologic Technology Program, TMCC-Allied Health Office (RDMT 417), 7000 Dandini Blvd., Reno, NV 89512 postmarked by June 1 of the current year.

Selection to the radiologic technology program will be based on information obtained from the admission requirements and the number of points the applicant receives. Eligible students will be numerically ranked according to total points. Points will be awarded for a previously completed degree, residency status, credentialed health occupations, completion of general education degree requirements, and support area (includes completion of support courses and/or work experience). Admission will be offered to the applicants on the list with the highest points. In the event of applicants having an equal number of points, the students' GPAs (in all coursework applying toward an associate of applied science degree in radiologic technology) will be used to rank the tied group. If the GPA does not resolve the tie, lots will be drawn to decide selection. Selection to the radiologic technology program is done on an annual basis. Applicants not selected must reapply for consideration the following year.

After Acceptance to the Program

After selected for admission, in response to a letter from the program coordinator, the student will enroll in Magnus Immunization Track through Certifiedbackground.com and provide documentation of the following prior to the first day of class:

1. Evidence of current major medical insurance coverage.
2. Evidence of two negative TB skin tests done within the past year (persons with prior positive TB test must see program coordinator).
3. Evidence of required immunization status for hepatitis B, DT, Varicella and MMR.
4. Evidence of a current Health Care Provider CPR card (preferably from the American Heart Association).

The student must also do the following prior to the first day of class:

1. Provide the Technical Assessment Standards form signed by a health care provider.
2. Request the required background check and drug test (instructions to be provided by the program coordinator after full class is confirmed).

For students desiring a career as a radiologic technologist, the following requirements are considered essential to be able to function in the role of a radiologic technologist.

1. Sit, stand, bend, squat, twist, walk, lift, and to reach for extended periods.
2. Grasp and perform fine manipulations.
3. Carry and push heavy, sometimes cumbersome objects.

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4. Be free from conditions which put other humans at risk for harm.
5. Read, write, record and report in English.
6. Comprehend written and oral directions and carry them out.
7. Speak and understand English to adequately communicate orally.
8. Perform simple mathematical functions.
9. Integrate information and problem solve through critical thinking.
10. Effectively interact with the environment and other people.
11. Concentrate, remember and attend class.

Terminal Outcomes (Competencies)

The radiologic technology program graduate should be able to do the following:

1. Use oral and written medical communication.
2. Demonstrate knowledge of human structure, function and pathology.
3. Anticipate and provide basic patient care and comfort.
4. Apply principles of body mechanics.
5. Perform basic mathematical functions.
6. Operate radiographic imaging equipment and accessory devices.
7. Position the patient and imaging system to perform radiographic examinations and procedures.
8. Modify standard procedures to accommodate for patient condition and other variables.
9. Process radiographs.
10. Determine exposure factors to obtain diagnostic quality radiographs with minimum radiation exposure.
11. Adapt exposure factors for various patient conditions, equipment, accessories and contrast media to maintain appropriate radiographic quality.
12. Practice radiation protection for the patient, self and others.
13. Recognize emergency patient conditions and initiate first aid and basic life-support procedures.
14. Evaluate radiographic images for appropriate positioning and image quality.
15. Evaluate the performance of radiographic systems, know the safe limits of equipment operation and report malfunctions to the appropriate authority.
16. Demonstrate knowledge and skills relating to quality assurance.
17. Exercise independent judgment and discretion in the technical performance of medical imaging procedures.

Advanced Standing

Advanced standing admission to the radiologic technology program is an option for specific program applicants having educational experience within a radiologic technology program. Written requests for advanced standing admission will be considered on an individual basis and must be submitted to the program coordinator. The applicant will receive a written response to the request following a thorough evaluation of pertinent information. Contact the program coordinator at 775-673-7121 for more information.

Radiologic Technology Degree

Associate of Applied Science

Degree Outcomes

Students completing the degree will:

- Have the knowledge and skills necessary to produce diagnostic radiographic examinations.
- Be prepared to take the American Registry of Radiologic Technologists (ARRT) examination for radiographers.
- Demonstrate an increase in their knowledge of radiation protection, equipment operation and quality control, image acquisition and evaluation, image procedures, and patient care and education which will prepare them to function as radiologic technologists.

GENERAL EDUCATION DEGREE REQUIREMENTS MAY BE TAKEN PRIOR TO ADMISSION TO THE PROGRAM. SEE SPECIAL ADMISSION REQUIREMENTS.

Prerequisites

(a grade of "C" or better required)

BIOL 223	Human Anatomy and Physiology I	(4)
- and -		
BIOL 224	Human Anatomy and Physiology II	(4)
- or -		
BIOL 141	Human Structure and Function I and.....	(4)
BIOL 142	Human Structure and Function II	(4)
ENG 101	Composition I	3
MATH 105	Math for Radiologic Technicians	3
Or MATH 120 or higher.		
NURS 130	Nursing Assistant	6
LTE 110	Techniques of Venipuncture	4
RAD 101	Exploration of Radiology	0.5

Total Prerequisite Requirements 24.5 Credits

Core Requirements

General education degree requirements may be taken prior to program or in the sequence listed below. A grade of "C" or better is required.

Diversity (3 credits)

Refer to the 'Diversity' section of the general education description of this college catalog for a list of approved courses. Designated diversity courses can be used to fulfill other general education or major requirements.

Semester I (Fall)

IS 101	Introduction to Information Systems.....	3
RAD 103	Medical Ethics	1
RAD 110	Fundamentals of Clinical Radiography I	1
RAD 112	Patient Care and Medical Terminology.....	2
RAD 116	Radiography I.....	3
RAD 118	Radiology Physics and Circuitry	3

Total Semester I Requirements 13 Credits

Semester II (Spring)

PSC 101	Introduction to American Politics (or equivalent)	3
RAD 124	Radiographic Photo and Techniques.....	3
RAD 125	Clinical Radiography I.....	2
RAD 126	Radiography II.....	3
RAD 128	Imaging Equipment	3

Total Semester II Requirements 14 Credits

Semester III (Summer)

RAD 220	Clinical Radiography II.....	3
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Total Semester III Requirements 3 Credits

Semester IV (Fall)

RAD 230	Clinical Radiography III.....	3
RAD 236	Radiographic Contrast—Routine Exams	2
RAD 238	Radiation Safety and Protection.....	2
	Diversity/Social Science/Humanities	3

Total Semester IV Requirements 10 Credits

Semester V (Spring)

RAD 242	Radiography Quality Management	1
RAD 244	Diagnostic and Therapeutic Radiation	2
RAD 245	Clinical Radiography IV.....	3
RAD 247	Radiography Quality Control	1
	English/Communications	3
	Human Relations.....	3

Total Semester V Requirements 13 Credits

Semester VI (Summer)

RAD 250	Clinical Radiography V.....	3
RAD 259	Seminar in Radiography.....	2

Total Semester VI Requirements 5 Credits

Total Degree Requirements 82.5 Credits

The ratio used to determine credit for the clinical radiology courses in the radiologic technology program is different from the ratio used for didactic courses.

RAD 110	Fund. of Clinical Radio. I—132 hours
RAD 230	Clinical Radio. III—384 hours
RAD 125	Clinical Radio. I —256 hours
RAD 245	Clinical Radio. IV—384 hours
RAD 220	Clinical Radio. II—400 hours
RAD 250	Clinical Radio. V—396 hours

See the following page for the Suggested Course Sequence.

Radiologic Technology Degree

Associate of Applied Science

Suggested Course Sequence

Course #	Title	Credits	
1st Semester (Fall)			
	IS 101	Introduction to Information Systems	3
Core	RAD 103	Medical Ethics	1
Core	RAD 110	Fundamentals of Clinical Radiography I	1
Core	RAD 112	Patient Care and Medical Terminology	2
Core	RAD 116	Radiography I	3
Core	RAD 118	Radiology Physics and Circuitry	3
		Total	13
2nd Semester (Spring)			
U.S. and NV Const.	PSC 101	Introduction to American Politics	3
Core	RAD 124	Radiographic Photo and Techniques	3
Core	RAD 125	Clinical Radiography I	2
Core	RAD 126	Radiography II	3
Core	RAD 128	Imaging Equipment	3
		Total	14
3rd Semester (Summer)			
Core	RAD 220	Clinical Radiography II	3
		Total	3
Course #	Title	Credits	
4th Semester (Fall)			
Soc. Sci./Hum./Div.	Elective		3
Core	RAD 230	Clinical Radiography III	3
Core	RAD 236	Radiographic Contrast—Routine Exams	2
Core	RAD 238	Radiation Safety and Protection	2
		Total	10
5th Semester (Spring)			
English/Com.	Elective		3
Human Relations	Elective		3
Core	RAD 242	Radiography Quality Management	1
Core	RAD 244	Diagnostic and Therapeutic Radiation	2
Core	RAD 245	Clinical Radiography IV	3
Core	RAD 247	Radiography Quality Control	1
		Total	13
6th Semester (Summer)			
Core	RAD 250	Clinical Radiography V	3
Core	RAD 259	Seminar in Radiography	2
		Total	5
		(includes 24.5 prerequisite credits) Degree Total	82.5