

# MEDICAL IMAGING

[pcc.edu/programs/medical-imaging/](http://pcc.edu/programs/medical-imaging/)

## CAREER AND PROGRAM DESCRIPTION RADIOGRAPHY PROGRAM

Radiographers are important members of the health care team and work closely with physicians and particularly with radiologists. The radiographer is primarily concerned with providing diagnostic radiographic images (x-rays) of disease and injury and assisting in patient care. The radiographer may be employed in hospitals, clinics and medical offices.

Radiography graduates may apply to take the national certification examination offered by the American Registry of Radiologic Technologists (ARRT) and for licensure as a radiographer in the state of Oregon and Washington.

PCC's program begins each June with an introductory course. The Radiography Program is eight terms in length (24 consecutive months). The program combines campus instruction with clinical education at affiliated hospitals in the Portland area. This program is designed to prepare the student for certification as a Registered Technologist in Radiography, R.T. (R).

## CT TECHNOLOGIST TRAINING PROGRAM

CT Technologists are important members of the health care team and work closely with Radiologists to produce diagnostic CT images. Computed Tomography requires additional training beyond the primary certification earned in Radiography. Nuclear Medicine Technologists who will perform PET/CT may enroll in this program, which meets the State of Oregon requirements for CT Training.

The CT Technologist Training Program is four terms in length (12 consecutive months). The program combines campus and online instruction with clinical education at affiliated hospitals. Upon completion of this program, students will be qualified to sit for the national CT certification examination offered by the American Registry of Radiologic Technologists (ARRT).

Special admission required for registration. Applicants must be registry eligible or currently registered, in good standing, in Radiography or Nuclear Medicine to apply to the program. Acceptance into the program is based on clinical seat availability which varies from year to year.

## MRI TECHNOLOGIST TRAINING PROGRAM

MRI Technologists are important members of the health care team and work closely with Radiologists to produce diagnostic MR images. Magnetic Resonance Imaging requires additional training beyond the primary certification earned in Radiography, Nuclear Medicine, Ultrasound or Radiation Therapy. Upon completion of this program, students will be qualified to sit for the national MRI Certification examination offered by the American Registry of Radiologic Technologists (ARRT).

The MRI Technologist Training Program is three terms in length (9 consecutive months). The program combines campus and online instruction with clinical education at affiliated hospitals. Applicants must be a Registered Radiologic Technologist ARRT(R), Registered Nuclear Medicine Technologist ARRT(N) or (CNMT), Registered Radiation Therapy Technologist ARRT(T) or Registered Medical Sonographer (RDMS) in good standing with one-year experience preferred. Technologists with less than one year experience may be admitted with Director permission. Refer to College catalog for program curriculum

## MEDICAL IMAGING CONTINUING EDUCATION COURSES

College credit courses are available to A.R.R.T certified technologists for updating and re-entry knowledge and skills. See the Medical Imaging website for specific offerings each term. Special admission required for registration. Contact the Medical Imaging department for information at 971-722-4227.

## DEGREES AND CERTIFICATES OFFERED

### ASSOCIATE OF APPLIED SCIENCE DEGREE

Radiography

### LESS THAN ONE-YEAR CERTIFICATE

Computed Tomography  
Magnetic Resonance Imaging

### Academic Prerequisites

Radiography

- All program applicants must have a high school diploma or a GED certificate. In addition, all applicants will be required to have satisfactorily completed (minimum letter grade "C") WR 121Z, MTH 95, BI 231, BI 232 and BI 233, MP 111 or the equivalent. Pass/No Pass grade is not acceptable in prerequisites.
- BI 231, BI 232, BI 233 and MTH 95 must be current within seven years of application. All prerequisites must be completed by end of winter term in the year in which you apply.
- The Radiography Program is a limited entry program with restricted enrollment. Completing admission requirements and applying to the program does not guarantee admission.
  - All students must be formally admitted in order to enroll in the radiography courses. Other enrollees must have program permission.
  - For information on specific application procedures and deadlines, please contact the Health Admissions Office at 971-722-4795 or visit the website [www.pcc.edu/hao](http://www.pcc.edu/hao).

Computed Tomography Technologist Training Program

- Applicants must be registry eligible or currently registered, in good standing, in Radiography ARRT(R) or Nuclear Medicine ARRT(N) or (CNMT) to apply to the program.
- The CT Technologist Training Program is a limited entry program with restricted enrollment. Completing admission requirements and applying to the program does not guarantee admission.
  - All students must be formally admitted in order to enroll in the Computed Tomography courses.
  - For information on specific application procedures and deadlines, please contact the Health Admissions Office at 971-722-4795 or visit the website [www.pcc.edu/hao](http://www.pcc.edu/hao).

Magnetic Resonance Imaging Technologist Training Program

- Applicants must be a Registered Radiologic Technologist ARRT(R), Registered Nuclear Medicine Technologist ARRT(N) or (CNMT), Registered Radiation Therapy Technologist ARRT(T) or Registered Medical Sonographer (RDMS) in good standing with one-year experience preferred. Technologists with less than one year experience may be admitted with Director permission.
- The MRI Technologist training program is a limited entry program with restricted enrollment. Completing admission requirements and applying to the program does not guarantee admission.
  - All students must be formally admitted in order to enroll in the MRI courses.
  - For information on specific application procedures and deadlines, please contact the Health Admissions Office at 971-722-4795 or visit the website [www.pcc.edu/hao](http://www.pcc.edu/hao).

Vascular Interventional Catheterization Technology Program

- Applicants must be a Registered Radiologic Technologist ARRT(R), licensed Registered Nurse (RN), or Cardiovascular Technologist CVT(RCIS) in good standing.
- The VIR Technologist training program is a limited entry program with restricted enrollment. Completing admission requirements and applying to the program does not guarantee admission.
  - All students must be formally admitted in order to enroll in the VIR courses.
  - For information on specific application procedures and deadlines, please contact the Health Admissions Office at 971-722-4795 or visit the website [www.pcc.edu/ha0](http://www.pcc.edu/ha0).

**Academic Requirements**

Radiography

- Students are required to satisfactorily complete the course of study with a letter grade of "C" or better in each required course and must maintain an overall grade point average of 2.0 for graduation. RAD 216 is exempt from the grade expectation as it is offered for Pass/No Pass only.

Computed Tomography Technologist Training Program

- Students are required to satisfactorily complete the course of study with a letter grade of "C" or better in each didactic course and a letter grade of "B" or better in the clinical courses.

Magnetic Resonance Imaging Technologist Training Program

- Students in the Magnetic Resonance Imaging Certificate program must complete all MRI courses with a letter grade of "C" or better.

Vascular Interventional Catheterization Technology Program

- Students in the Vascular Interventional Catheterization Technology Certificate program must complete all VIR courses with a letter grade of "C" or better.

**Non-Academic Prerequisites**

Radiography

- The Radiography Program does not require a computer science prerequisite; however, success in a Radiography Program requires that students be computer literate, including, at least, word processing, use of spreadsheets and web searches. Students with no computer experience should discuss with an advisor ways to achieve competency prior to entering the Radiography Program.
- Potential applicants are encouraged but not required to gain health care experience by volunteering or working in the health care industry, preferably in a hospital setting to gain knowledge of professional duties and responsibilities.
- Once accepted to the program, students will be required to submit to a criminal background check and a drug screen for their clinical practicum. Students must be able to provide a valid Social Security number for the criminal background check. Proof of immunizations will also be required. For a complete listing of required immunizations, please visit our website at [www.pcc.edu/rad](http://www.pcc.edu/rad).
- During the course of the program students will be working with ionizing radiation, processing chemicals and they will provide patient care to individuals who may have contagious diseases. Special immunization is required.

Computed Tomography Technologist Training Program

- Once accepted to the program, students will be required to submit to a criminal background check and a drug screen for their clinical practicum. Students must be able to provide a valid Social Security Number for the criminal background check. Proof

of immunizations may also be required. For a complete list of required immunizations, please visit the Medical Imaging website.

Magnetic Resonance Imaging Technologist Training Program

- Once accepted to the program, students will be required to submit to a criminal background check and a drug screen for their clinical practicum. Students must be able to provide a valid Social Security Number for the criminal background check. Proof of immunizations may also be required. For a complete list of required immunizations, please visit the Medical Imaging website.

Vascular Interventional Radiography Technologist Training Program

- Once accepted to the program, students will be required to submit to a criminal background check and a drug screen for their clinical practicum. Students must be able to provide a valid Social Security Number for the criminal background check. Proof of immunizations may also be required. For a complete list of required immunizations, please visit the Medical Imaging website.

**Non-Academic Requirements**

- None

**RADIOGRAPHY AAS DEGREE**

Minimum 104 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. In addition to required courses in the program of study, students must satisfy MTH 58/65 competency. Students should consult with program advisors for course planning.

**Course of Study**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

|                             |                                    | Credits |
|-----------------------------|------------------------------------|---------|
| Summer Term                 |                                    |         |
| RAD 100                     | Introduction to Radiography        | 1       |
| First Term                  |                                    |         |
| RAD 101                     | Radiographic Positioning I         | 3.5     |
| RAD 105                     | Methods of Patient Care            | 3       |
| RAD 106                     | Radiographic Equipment I           | 4       |
| RAD 110                     | Radiographic Clinic I              | 4.5     |
| Second Term                 |                                    |         |
| RAD 102                     | Radiographic Positioning II        | 3.5     |
| RAD 107                     | Radiographic Equipment II          | 4       |
| RAD 115                     | Principles of Exposure I           | 3       |
| RAD 120                     | Radiographic Clinic II             | 4.5     |
| Third Term                  |                                    |         |
| RAD 103                     | Radiographic Positioning III       | 3.5     |
| RAD 130                     | Radiographic Clinic III            | 4.5     |
| RAD 132                     | Radiographic Image Production      | 3       |
| General Education: 1 Course |                                    |         |
| Fourth Term                 |                                    |         |
| RAD 140                     | Radiographic Clinic IV             | 10      |
| General Education: 1 course |                                    |         |
| Fifth Term                  |                                    |         |
| RAD 203                     | Applied Radiography Topics         | 2       |
| RAD 205                     | Radiographic Positioning IV        | 3       |
| RAD 209                     | Advanced Radiological Procedures   | 2       |
| RAD 210                     | Radiographic Clinic V              | 7       |
| General Education: 1 course |                                    |         |
| Sixth Term                  |                                    |         |
| RAD 206                     | Survey of Medical Imaging Diseases | 3       |
| RAD 211A                    | The Study of Imaging Modalities    | 2       |

|                             |                                |     |
|-----------------------------|--------------------------------|-----|
| RAD 220                     | Radiographic Clinic VI         | 7   |
| General Education: 1 course |                                |     |
| Seventh Term                |                                |     |
| RAD 122                     | Radiation Protection - Biology | 3   |
| RAD 216                     | Radiography Registry Review    | 2   |
| RAD 230                     | Radiographic Clinic VII        | 9   |
| Total Credits               |                                | 104 |

**LESS THAN ONE-YEAR CERTIFICATE**

Computed Tomography (p. 3)  
 Magnetic Resonance Imaging (p. 3)

**COMPUTED TOMOGRAPHY LESS THAN ONE-YEAR CERTIFICATE**

Minimum 19 credits. Students must meet all certificate requirements.

**Course of Study**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term    |  | Credits |
|---------------|--|---------|
| CTT 101       | Cross-Sectional Anatomy-Abdomen & Pelvis           | 1       |
| CTT 102       | Cross-Sectional Anatomy- Head & Spine              | 1       |
| CTT 111       | CT Physics, Equipment and Instrumentation          | 2       |
| Second Term   |  |         |
| CTT 103       | Cross-Sectional Anatomy - Neck & Thorax            | 1       |
| CTT 104       | Cross Sectional Anatomy Review                     | 1       |
| CTT 112       | CT Procedures, Protocols and Pathology Correlation | 2       |
| Third Term    |  |         |
| CTT 271       | CT Clinical Education I                            | 5       |
| Fourth Term   |  |         |
| CTT 113       | CT Registry Review                                 | 1       |
| CTT 272       | CT Clinical II                                     | 5       |
| Total Credits |  | 19      |

**MAGNETIC RESONANCE IMAGING LESS THAN ONE-YEAR CERTIFICATE**

Minimum 32 credits. Students must meet all certificate requirements.

**Course of Study**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term    |  | Credits |
|---------------|--|---------|
| MRI 101       | MRI Physics I - Principles, Equipment & Safety | 2       |
| MRI 111       | MRI Cross-Sectional Anatomy I                  | 2       |
| MRI 271       | MRI Clinical I                                 | 6       |
| Second Term   |  |         |
| MRI 102       | MRI Physics II - Advanced Principles           | 2       |
| MRI 112       | MRI Cross-Sectional Anatomy II                 | 1       |
| MRI 272       | MRI Clinical II                                | 8       |
| Third Term    |  |         |
| MRI 130       | MRI Imaging Procedures and Diagnosis           | 2       |
| MRI 140       | MRI Registry Review                            | 1       |
| MRI 273       | MRI Clinical III                               | 8       |
| Total Credits |  | 32      |