# Medical Radiologic Technology Diploma

## PLAR Candidate Guide

Prior Learning Assessment and Recognition (PLAR)



### Prior learning credit options at Saskatchewan Polytechnic

See Get Credit for What you Know for important information about all options to get credit for prior learning at Sask Polytech, including PLAR, transfer credit, Canadian Armed Forces credit, and equivalency credit.

### How to navigate this document

This document contains links to other document sections or webpages. To return to where you were from another section in this document, press the *ALT* key and *left arrow* key at the same time. To return to this webpage from another webpage, close the other webpage or click back on the browser tab for this document.

### Contents of this guide

This guide contains the following specific PLAR information and tools for this program

## A. PLAR fees

Fees for PLAR challenges are set to cover our costs for consultation, assessment, and related administrative tasks. PLAR fees are non-refundable and non-transferrable.

The PLAR fees policy is subject to change for each new academic year. Please see the **Cost** section on the PLAR webpage for current fee information.

## B. PLAR eligibility and options

To be eligible for PLAR for courses in this program, you must first apply for admission and be accepted into the program. You must also consult with the PLAR contact person and be approved for PLAR assessment.

## C. Dates when PLAR assessment is available

PLAR assessment for this program is available from Sept 1 to June 15 in each academic year.

**All PLAR assessments must be completed by June 15 of each academic year**.

## D. Special directions for this program

1. **Review** the PLAR process and FAQs and the information in this guide.
2. **Self-rate** your learning for each course using the Course Outlines in this guide.
3. **Consult** with the PLAR contact person for PLAR approval. Be prepared to provide your resume, course self-ratings (see section F), and a partially completed PLAR application. If you are approved for PLAR, the contact person will sign your PLAR application and explain next steps.
4. Apply for admission to the program. See directions for applying.
5. **Register** for PLAR at Registration/Enrolment Services once you have signed approval on your PLAR Application Form. The PLAR fee will be added to your student account.
6. **Finalize** an assessment plan with your assigned assessor**.**
7. **Complete** assessment before your PLAR registration expires.

## E. PLAR contact person

Contact one of the Program Heads below to arrange a consultation **after** you have read this guide and general PLAR information **and** rated yourself for each course (see next section). Consultation may be by phone, online, or in person. Be prepared to provide your resume, course self-ratings, and a partially completed PLAR application. If agreement is reached to go ahead with PLAR, the contact person will sign approval on your PLAR application and explain the next steps. Admission to the program is required before you can register for PLAR.

**Rebecca Friesen, Program Head**
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## F. Self-rating course outlines

Clicking on a course code below opens a page where you can rate yourself on the knowledge and skills assessed for PLAR credit. For Arts & Sciences courses, clicking on the course code opens another PLAR guide. The PLAR contact person for this program will refer you to another person to discuss PLAR for courses delivered by Arts & Sciences or another program/department.

| COURSE CODE | COURSE NAME | Delivered by another department/program |
|---|---|---|
| **Year 1** | | |
| APHY 103 | Introduction to Anatomy and Physiology | |
| ETHC 101 | Professionalism in Health Care | |
| INFC 180 | Infection Control and Safety | |
| MTER 180 | Medical Terminology | |
| RGAN 101 | Radiographic Anatomy | |
| RSAP 101 | Radiation Science 1 | |
| RSAP 102 | Radiation Science 2 | |
| | | |
| MGMT 109 | Patient Management 1 | |
| MGMT 110 | Patient Management 2 | |
| RDGR 179 | Radiographic Positioning and Critique 1 (Theory and Lab) | |
| RDTM 280 | Computed Tomography Equipment | |

| COURSE CODE | COURSE NAME | Delivered by another department/program |
|---|---|---|
| RDTM 281 | Sectional Anatomy | |
| RSAP 103 | Radiation Science 3 | |
| SOCI 101 | Cultural and Indigenous Awareness in Health Care | |
| | | |
| PSYC 104 | Psychology of Health and Wellness Management | |
| RDGR 180 | Radiographic Positioning and Critique 2 (Theory and Lab) | |
| RDTM 282 | Computed Tomography Applications | |
| | | |
| PATH 203 | Pathophysiology | |
| RDGR 201 | Fluoroscopy | |
| RDGR 202 | Advanced Radiographic Procedures | |
| RDGR 203 | Adaptive Radiography | |
| RDGR 204 | Advanced Image Critique | |
| RSCH 280 | Intro to Research | |
| SIMU 281 | Practical Skills and Simulation | |
| | | |
| CLIN 295 | Clinical Radiography 1 | |
| EDUC 211 | Competency Development | |
| IPE 100 | Interprofessional Education | |
| | | |
| CLIN 296 | Clinical Radiography 2 | |
| CLIN 297 | Clinical Radiography 3 | |
| EDUC 302 | Competency Maintenance | |

**APHY 103 - Introduction to Anatomy and Physiology**

You will be introduced to the study of the human body and how it functions efficiently. You will study various body systems that are of critical importance for the promotion and maintenance of health.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe the anatomical and organizational levels of the body. | | | |
| 2. Describe the chemical constituents, structure and functions of the cell. | | | |
| 3. Describe the characteristics and functions of tissues, membranes and the integumentary system of the body. | | | |
| 4. Describe the structure and function of the skeletal system, articulations and the muscular system. | | | |
| 5. Describe the structure and function of the nervous and endocrine systems. | | | |
| 6. Describe the components of blood and their functions and the role of the heart in the cardiovascular system. | | | |
| 7. Describe the structure and function of the circulatory system (cardiovascular and lymphatic) and respiratory system. | | | |
| 8. Describe the structure and function of the digestive system. | | | |
| 9. Describe the structure and function of the urinary and reproductive systems. | | | |

**ETHC 101 - Professionalism in Health Care**

You will participate in an introduction to health care and health care delivery systems. Co-operative working relationships, employability skills, conflict management, critical thinking skills, communication, wellness, and stress management techniques will be emphasized throughout the course.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe health care and health care delivery. | | | |
| 2. Interpret legal issues in health care. | | | |
| 3. Describe standards of practice from regulatory and professional organizations. | | | |
| 4. Demonstrate communication skills. | | | |
| 5. Demonstrate communication approaches for various patient demographics. | | | |
| 6. Demonstrate collaborative practice in the health care setting. | | | |
| 7. Employ personal health and sustainable practices. | | | |
| 8. Practice employability skills in health care. | | | |

**INFC 180 - Infection Control and Safety**

You will learn the transmission of microorganisms and blood-borne pathogens as well as how to protect yourself and others when working with patients and patient samples.

**Credit unit(s):** 2.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate the proper use of personal protective equipment. | | | |
| 2. Describe safety in the workplace. | | | |
| 3. Describe the characteristics of microorganisms. | | | |
| 4. Describe the interaction between microbe and host. | | | |
| 5. Discuss the importance of immunization and screening in health care. | | | |
| 6. Recognize sterilization and disinfection procedures as an essential part of infection control. | | | |

**MTER 180 - Medical Terminology**

You will learn to use the prefixes, suffixes and combining forms from which medical terms are derived. You will also learn to use medical abbreviations.

**Credit unit(s):** 1.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** MED 161

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Examine the history of medical terminology, basic components, medical prefixes, and suffixes. | | | |
| 2. Relate combining forms to body systems. | | | |
| 3. Analyze commonly used medical terms and medical abbreviations. | | | |

**RGAN 101 – Radiographic Anatomy**

You will develop an understanding of the structure and function of the skeletal system encompassing microscopic elements to macroscopic features. Your studies will focus on identifying the skeletal, thoracic, abdominal and respiratory anatomy in radiographic images. Topographical anatomy will be discussed to aid in radiographic positioning.

**Credit unit(s):** 4.0
**Prerequisites:** APHY 103(concurrent), MTER 180(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Discuss the structure and function of the skeletal system. | | | |
| 2. Discuss the upper limb and shoulder girdle. | | | |
| 3. Discuss the lower limb and pelvic girdle. | | | |
| 4. Discuss the vertebral column. | | | |
| 5. Discuss the bony thorax. | | | |
| 6. Discuss the cranium. | | | |
| 7. Discuss facial bones. | | | |
| 8. Discuss the chest. | | | |
| 9. Discuss the abdomen. | | | |

**RSAP 101 – Radiation Science 1**

You will learn the scientific principles related to the production of x-radiation, the properties and interaction with matter. The course content includes basic radiographic equipment specific to the production of x-rays. Your studies will focus on the fundamental radiation protection practices, which include monitoring, safety regulations, dose reduction and quality control procedures.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Examine the properties and radiobiological effects of x-rays in relation to the electromagnetic spectrum. | | | |
| 2. Apply electrical and electromagnetic principles to x-ray generator operation. | | | |
| 3. Discuss the components of an x-ray system. | | | |
| 4. Examine the production and characteristics of an x-ray beam. | | | |
| 5. Operate devices used to detect and measure various quantities and units of radiation. | | | |
| 6. Discuss radiation safety regulations and significance to dose. | | | |

**RSAP 102 – Radiation Science 2**

You will examine the primary technical factors and how to manipulate them based on variables such as radiographic equipment, patient anatomy and pathology, dose considerations, and image quality.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Discuss the primary technical factors and methods for developing technique charts. | | | |
| 2. Examine the variables that affect image receptor exposure and contrast. | | | |
| 3. Examine the variables that affect image resolution and distortion. | | | |
| 4. Practice proper use of automatic exposure control. | | | |
| 5. Demonstrate the effects of beam restricting devices. | | | |
| 6. Demonstrate the effects of tube filtration. | | | |
| 7. Demonstrate the effects of grid devices. | | | |
| 8. Apply technical factor manipulation for adaptations. | | | |

**MGMT 109 – Patient Management 1**

This course provides an introduction to topics which impact the care of patients within a radiology setting. Your studies will focus on communication and considerations for patients of varying demographics. You will learn to recognize changes in a patient's physical status and the appropriate response of the radiographer during medical emergencies. Your studies will help you to identify medical accessory devices and their purposes. You will demonstrate isolation techniques and learn the theory of surgical asepsis, as well as practice assisting with personal care tasks such as assisting with dressing and placing bed pans.

**Credit unit(s):** 2.0
**Prerequisites:** APHY 103, ETHC 101, INFC 180, MTER 180
**Corequisites:** none
**Equivalent course(s):** ETHC 181

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe how to effectively provide and obtain information from patients and other healthcare professionals. | | | |
| 2. Respond to changes in the patient's physical status. | | | |
| 3. Apply principles to limit the spread of pathogens during diagnostic medical procedures. | | | |
| 4. Identify medical emergencies and the radiographer's role in treatment. | | | |
| 5. Identify medical accessory equipment and their function. | | | |

**MGMT 110 – Patient Management 2**

You will learn the radiographer's role in patient care regarding surgical asepsis, medication administration, intravenous therapy and contrast media administration.

**Credit unit(s):** 2.0
**Prerequisites:** MGMT 109(concurrent)
**Corequisites:** none
**Equivalent course(s):** ETHC 182

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate techniques utilizing surgical asepsis. | | | |
| 2. Explain drug therapy. | | | |
| 3. Perform intravenous therapy procedures. | | | |
| 4. Summarize techniques for contrast media administration. | | | |

**RDGR 179 – Radiographic Positioning and Critique 1 (Theory and Lab)**

You will learn the theory and develop the skills of radiographic positioning and image critique for the appendicular skeleton.

**Credit unit(s):** 4.0
**Prerequisites:** RGAN 101, RSAP 103(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe the fundamentals of radiographic positioning. | | | |
| 2. Describe projections used to demonstrate the upper limb and shoulder girdle. | | | |
| 3. Demonstrate correct positioning for the upper limb and shoulder girdle. | | | |
| 4. Critique radiographs of the upper limb and shoulder girdle. | | | |
| 5. Describe projections used to demonstrate the lower limb and pelvic girdle. | | | |
| 6. Demonstrate correct positioning for the lower limb and pelvic girdle. | | | |
| 7. Critique radiographs of the lower limb and pelvic girdle. | | | |

**RDTM 280 – Computed Tomography Equipment**

You will learn about the specialized equipment and accessories used for computed tomography (CT) scanning. You will study the principles of acquisition, reconstruction, post-processing and storage of CT images. You will learn about image quality, artifacts and quality control procedures, as well as use of automatic power injector and radiation dose in CT.

**Credit unit(s):** 2.0
**Prerequisites:** RSAP 101, RSAP 102, RSAP 103(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Discuss planar imaging and the components of a computed tomography (CT) system. | | | |
| 2. Discuss the operation of the CT unit. | | | |
| 3. Discuss CT image formation and management. | | | |
| 4. Discuss CT image characteristics and artifacts. | | | |
| 5. Describe operating principles of automatic power injectors. | | | |
| 6. Discuss patient dose as it relates to CT. | | | |
| 7. Discuss quality control tests for CT. | | | |

**RDTM 281 – Sectional Anatomy**

You will learn how to identify the sectional anatomy of the head, neck, chest, abdomen and pelvis on computed tomography (CT) and magnetic resonance imaging (MRI) images in transverse, coronal and sagittal planes. You will discuss topographical anatomy to aid in sectional anatomy and basic CT procedures.

**Credit unit(s):** 3.0
**Prerequisites:** APHY 103, RGAN 180
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Identify anatomy of the extremities in transverse, coronal and sagittal images. | | | |
| 2. Identify anatomy of the abdomen and pelvis in transverse, coronal and sagittal images. | | | |
| 3. Identify thoracic anatomy in transverse, coronal and sagittal images. | | | |
| 4. Identify anatomy of the head and neck in transverse coronal and sagittal images. | | | |

**RSAP 103 – Radiation Science 3**

You will learn about digital radiographic equipment with respect to image acquisition, processing, archival storage, and digital quality control procedures.

**Credit unit(s):** 2.0
**Prerequisites:** RSAP 101, RSAP 102
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe digital radiography equipment. | | | |
| 2. Examine Computed Radiography (CR) Systems. | | | |
| 3. Examine Digital Radiography (DR) Systems. | | | |
| 4. Manipulate images using various post-processing techniques. | | | |
| 5. Discuss Picture Archiving and Communications Systems (PACS). | | | |
| 6. Identify image artifacts and digital equipment quality control procedures. | | | |

**SOCI 101 – Cultural and Indigenous Awareness in Health Care**

You will be introduced to the sociological imagination. You will discuss the relationship between culture, colonization, and land. The sociology of science and technology will be explained. You will learn to recognize forms of oppression, diversity, and inclusion. Next you will explore the need for reconciliation and decolonization. Finally, you will develop a personal awareness plan and social action plan.

**Credit unit(s):** 3.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe the sociological imagination. | | | |
| 2. Discuss the relationship between culture, colonization, and land. | | | |
| 3. Explain the sociology of science and technology. | | | |
| 4. Recognize forms of oppression, diversity, and inclusion. | | | |
| 5. Explore the need for reconciliation and decolonization. | | | |
| 6. Explore the need for reconciliation and decolonization. | | | |

**PSYC 104 – Psychology of Health and Wellness Management**

In this course you will be introduced to theories of stress and holistic concepts of wellness honouring different cultural perspectives. You will use the Medicine Wheel as a tool to examine the influence of stress on physical, mental, spiritual, and emotional health. Finally, you will create a personal stress management plan with a goal of respecting the four elements of health.

**Credit unit(s):** 1.0
**Prerequisites:** none
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Compare theories of stress and holistic concepts of wellness honouring different cultural perspectives. | | | |
| 2. Examine the influence of stress on physical, mental, spiritual, and emotional health using the Medicine Wheel. | | | |
| 3. Respect your personal stress management plan. | | | |

**RDGR 180 – Radiographic Positioning and Critique 2 (Theory and Lab)**

Building on the theory and skills learned in Radiographic Positioning and Critique 1 (Theory and Lab) you will learn the theory and develop the skills of radiographic positioning and image critique for the axial skeleton.

**Credit unit(s):** 4.0
**Prerequisites:** RDGR 179
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe the projections used to demonstrate the chest, thorax and abdomen. | | | |
| 2. Demonstrate correct positioning for the chest, thorax and abdomen. | | | |
| 3. Critique radiographs of the chest, thorax and abdomen. | | | |
| 4. Describe the projections used to demonstrate the vertebral column. | | | |
| 5. Demonstrate the correct positioning for the vertebral column. | | | |
| 6. Critique radiographs of the vertebral column. | | | |
| 7. Describe the projections used to demonstrate the skull. | | | |
| 8. Demonstrate correct positioning for the skull. | | | |
| 9. Critique radiographs of the skull. | | | |

**RDTM 282 – Computed Tomography Applications**

You will learn the radiographer's role when performing computed tomography (CT) scans of the body. You will discuss pathologies and how to optimize scan parameters based on pathology. You will discuss topographical anatomy to aid in sectional anatomy and basic CT procedures. You will also learn the principles of using intravenous contrast for these procedures.

**Credit unit(s):** 3.0
**Prerequisites:** RDTM 280, RDTM 281, MGMT 109, MGMT 110
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Perform intravenous therapy procedures. | | | |
| 2. Apply techniques for contrast media administration. | | | |
| 3. Describe the process of performing a Computed Technology (CT) scan of the head, neck and face. | | | |
| 4. Describe the process of performing a CT scan of the chest. | | | |
| 5. Describe the process of performing a CT scan of the abdomen and pelvis. | | | |
| 6. Describe the process of performing a CT scan of the extremities. | | | |
| 7. Describe the process of performing a CT scan of the spine. | | | |
| 8. Describe CT guided interventional procedures. | | | |

**PATH 203 - Pathophysiology**

You will learn the pathology of the organs and systems in the human body. Your studies will focus on the hematopoietic, endocrine, skeletal, thoracic and abdominal systems. At course completion, you will be able to recognize pathological processes and abnormal anatomy on radiographic images.

**Credit unit(s):** 2.0
**Prerequisites:** APHY 103, RGAN 101, RDGR 179
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe pathology of the hematopoietic and endocrine systems. | | | |
| 2. Analyze radiographic images for signs of hematopoietic and endocrine pathologies. | | | |
| 3. Describe pathology of the skeletal system. | | | |
| 4. Analyze radiographic images for signs of skeletal system pathologies. | | | |
| 5. Describe pathology of the thoracic and abdominal cavity. | | | |
| 6. Analyze radiographic images for signs of thoracic and abdominal cavity pathologies. | | | |

**RDGR 201 - Fluoroscopy**

You will learn how fluoroscopic equipment and related accessories function and operate. You will become familiar with various fluoroscopic examinations within the department and in the surgical/angiography suite. The course content includes the radiographic appearance of organs, structures and pathologies seen in various views and projections used in fluoroscopic examinations. You will learn about contrast and drug administration and their applications in fluoroscopy.

**Credit unit(s):** 3.0
**Prerequisites:** RGAN 101, RSAP 103, MGMT 110, RDGR 180, PATH 203(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Discuss the principles of fluoroscopy. | | | |
| 2. Discuss contrast media administration. | | | |
| 3. Apply principles of surgical radiography. | | | |
| 4. Discuss examinations of the skeletal system. | | | |
| 5. Practice examinations of the digestive system and identify pathologies on radiographic images. | | | |
| 6. Practice examinations of the genitourinary and reproductive systems and identify pathologies on radiographic images. | | | |
| 7. Practice examinations of the cardiovascular system and identify pathologies on radiographic images. | | | |

**RDGR 202 – Advanced Radiographic Procedures**

You will learn the theory and techniques used for mammographic imaging, including anatomy, pathology and positioning. You will discuss the application and uses of other imaging modalities within medical diagnostics. You will describe the role of an advanced practice technologist within interventional radiography.

**Credit unit(s):** 1.0
**Prerequisites:** RDGR 180, RSAP 103
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Describe mammography. | | | |
| 2. Examine related modalities in medical imaging. | | | |
| 3. Examine the role of the technologist within advanced practice radiography. | | | |

**RDGR 203 – Adaptive Radiography**

Building on the skills you learned in Radiographic Positioning and Critique 1 (Theory and Lab), Radiographic Positioning and Critique 2 (Theory and Lab) and Patient Management 1, you will demonstrate adaptive approaches for a variety of patient demographics and situations. Using available data, you will plan and demonstrate correct patient positioning for multiple skeletal radiographic examinations. You will review transfer techniques and discuss immobilization methods. You will demonstrate modifications from routine radiographic positioning to accommodate patient condition and abilities, including mobile radiography, trauma radiography, foreign body localization and pediatric radiography.

**Credit unit(s):** 4.0
**Prerequisites:** RDGR 180, MGMT 109, RDGR 204
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Plan imaging procedures using available data. | | | |
| 2. Apply radiologic concepts relating to imaging equipment. | | | |
| 3. Apply transfer techniques and immobilization principles. | | | |
| 4. Practice pediatric positioning. | | | |
| 5. Demonstrate radiologic examinations for localization of foreign bodies in the human body. | | | |
| 6. Demonstrate modifications for patient condition. | | | |
| 7. Practice mobile radiography. | | | |
| 8. Demonstrate modifications for trauma radiography. | | | |

**RDGR 204 – Advanced Image Critique**

You will develop fundamental skills for evaluating radiographs of the human body.

**Credit unit(s):** 3.0
**Prerequisites:** RSAP 103, RDGR 180
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Critique radiographs using a systematic approach. | | | |
| 2. Evaluate radiographs of the upper limb and shoulder girdle. | | | |
| 3. Evaluate radiographs of the lower limb and pelvic girdle. | | | |
| 4. Evaluate radiographs of the chest, abdomen, and bony thorax. | | | |
| 5. Evaluate radiographs of the vertebral column. | | | |
| 6. Evaluate radiographs of the skull, facial bones, and sinuses. | | | |

**RSCH 280 – Intro to Research**

You will receive an introduction to research concepts, methodologies, and issues in health care. You will demonstrate the practical application of research techniques.

**Credit unit(s):** 2.0
**Prerequisites:** APHY 103, ETHC 101, MTER 180
**Corequisites:** none
**Equivalent course(s):** COMM 289

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Employ various databases to search for research information. | | | |
| 2. Demonstrate citing and referencing. | | | |
| 3. Examine research concepts. | | | |
| 4. Examine research data. | | | |
| 5. Examine application of research to health care related issues. | | | |

**SIMU 281 – Practical Skills and Simulation**

You will participate in a simulation course designed to prepare you for your first clinical experience. The course will focus on skill development in the areas of patient care, diagnostic imaging procedures and equipment operation. You will assume a variety of roles as you engage in authentic scenarios typically encountered in clinical radiographic practice. This experience will assist you to correlate theory to real patient situations. Your ability to apply general employability skills will be emphasized.

**Credit unit(s):** 6.0
**Prerequisites:** ETHC 101, RSAP 103, RDTM 282, MGMT 110, RDGR 201(concurrent), PATH 203(concurrent), RDGR 203(concurrent), RDGR 204(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate professional deportment. | | | |
| 2. Demonstrate proficiency in equipment operation and performing radiology quality control testing. | | | |
| 3. Plan imaging procedure using available data. | | | |
| 4. Demonstrate correct patient positioning for multiple skeletal radiographic examinations. | | | |
| 5. Demonstrate proficiency in patient care skills. | | | |
| 6. Demonstrate aseptic techniques. | | | |
| 7. Demonstrate patient transfer, lifting and repositioning techniques. | | | |
| 8. Modify procedure for patient condition. | | | |
| 9. Operate mobile imaging equipment. | | | |
| 10. Demonstrate modification of exposure factors. | | | |
| 11. Utilize skills to evaluate radiographs using a systemic approach. | | | |

**CLIN 295 – Clinical Radiography**

You will participate in a supervised clinical experience at an assigned clinical site. You will develop basic radiographic skills in patient positioning, image critique and patient care. You will be introduced to advanced radiographic procedures.

**Credit unit(s):** 37.0
**Prerequisites:** SIMU 281, RDGR 204(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate safe work practices. | | | |
| 2. Demonstrate professional behaviour. | | | |
| 3. Comply with the Canadian Association of Medical Radiation Technologist (CAMRT) and Saskatchewan Association of Medical Radiation Technologists (SAMRT) Code of Ethics. | | | |
| 4. Communicate effectively with patients and their support persons. | | | |
| 5. Demonstrate ability to work as a member of the health care team. | | | |
| 6. Practice effective workload management. | | | |
| 7. Practice patient care skills. | | | |
| 8. Operate imaging equipment. | | | |
| 9. Perform general radiographic procedures. | | | |
| 10. Practice advanced radiographic procedures. | | | |
| 11. Critique image quality. | | | |
| 12. Identify procedural adjustments due to patient condition. | | | |
| 13. Demonstrate social responsibility and cultural awareness. | | | |
| 14. Demonstrate maintenance of competency. | | | |

**EDUC 211 – Competency Development**

You will develop a study plan using learning activities and assignments to maintain and improve personal competence. A systematic review of curriculum content, the national competency profile and comprehensive practice exam questions will be used to identify specific areas for improvement.

**Credit unit(s):** 1.0
**Prerequisites:** IMU 281, CLIN 295(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Develop a personal study plan. | | | |
| 2. Relate Medical Radiologic Technology (MRT) theory to the Canadian Association of Medical Radiation Technologist (CAMRT) MRT Competency Profile. | | | |
| 3. Implement strategies to support clinical competency. | | | |

**IPE 100 – Interprofessional Education**

Upon completion of this course, you will be able to define Interprofessional Education (IPE) and practice. You will be able to describe the benefits, barriers, and enablers to IPE. You will be able to explain how IPE positively affects collaborative patient-centered care. You will participate in a variety of IPE activities that will highlight professional values and ethics, as a member of an interprofessional team.

**Credit unit(s):** 1.0
**Prerequisites:** ETHC 101
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Discuss Interprofessional Education (IPE). | | | |
| 2. Describe IPE competency implementation. | | | |
| 3. Implement IPE strategies. | | | |

**CLIN 296 – Clinical Radiography 2**

You will participate in a supervised clinical experience at an assigned clinical site. You will maintain and build on competencies and skills acquired in CLIN 295 (Clinical Radiography 1). You will continue to develop radiographic skills in patient positioning, image critique and patient care. You will perform advanced radiographic procedures.

**Credit unit(s):** 16.0
**Prerequisites:** CLIN 295, RDGR 204
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate safe work practices. | | | |
| 2. Demonstrate professional behaviour. | | | |
| 3. Comply with the Canadian Association of Medical Radiation Technologist (CAMRT) and Saskatchewan Association of Medical Radiation Technologists (SAMRT) Code of Ethics. | | | |
| 4. Interact effectively with patients and their support persons. | | | |
| 5. Interact with all members of the health care team. | | | |
| 6. Demonstrate effective workload management. | | | |
| 7. Demonstrate patient care skills. | | | |
| 8. Operate imaging equipment. | | | |
| 9. Perform general radiographic procedures. | | | |
| 10. Practice advanced radiographic procedures. | | | |
| 11. Critique image quality. | | | |
| 12. Perform procedural adjustments due to patient condition. | | | |
| 13. Demonstrate social responsibility and cultural awareness. | | | |
| 14. Demonstrate maintenance of competency. | | | |

**CLIN 297 – Clinical Radiography 2**

You will participate in a supervised clinical experience at assigned clinical sites. You will maintain and build on competencies and skills acquired in Clinical Radiography 1. You will continue to develop radiographic skills in patient positioning, image critique and patient care. You will perform general and advanced radiographic procedures with minimal supervision.

**Credit unit(s):** 38.0
**Prerequisites:** CLIN 296, EDUC 202(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Demonstrate safe work practices. | | | |
| 2. Demonstrate professional behaviour. | | | |
| 3. Comply with the Canadian Association of Medical Radiation Technologist (CAMRT) and Saskatchewan Association of Medical Radiation Technologists (SAMRT) Code of Ethics. | | | |
| 4. Collaborate effectively with patients and their support persons. | | | |
| 5. Collaborate with all members of the health care team. | | | |
| 6. Manage workload effectively. | | | |
| 7. Apply patient care skills. | | | |
| 8. Control imaging equipment. | | | |
| 9. Perform general radiographic procedures. | | | |
| 10. Practice advanced radiographic procedures. | | | |
| 11. Critique image quality. | | | |
| 12. Apply procedural adjustments due to patient condition. | | | |
| 13. Demonstrate social responsibility and cultural awareness. | | | |
| 14. Demonstrate maintenance of competency. | | | |

**EDUC 302 – Competency Maintenance**

You will integrate and synthesize the knowledge, skills, and judgement gained through theory and clinical courses to develop a personal profile demonstrating competency maintenance. You will identify challenges and implement learning strategies to enhance and support clinical competency.

**Credit unit(s):** 1.0
**Prerequisites:** CLIN 296, CLIN 287(concurrent)
**Corequisites:** none
**Equivalent course(s):** none

| **Use a checkmark (P) to rate yourself as follows for each learning outcome**<br><br>**Competent:** I can apply this outcome without direction or supervision.<br>**Learning:** I am still learning skills and knowledge to apply this outcome.<br>**None:** I have no knowledge or experience related to this outcome. | **Competent** | **Learning** | **None** |
|---|---|---|---|
| 1. Identify challenges to clinical competency. | | | |
| 2. Complete a personal competency profile. | | | |
| 3. Implement strategies to enhance and support clinical competency. | | | |