



Combined Laboratory and X-Ray Technology Diploma

PLAR Candidate Guide (Partial)

Prior Learning Assessment and Recognition (PLAR)

Copyright

No part of the work(s) contained herein may be reproduced or copied in any form or by any means – graphic, electronic, or mechanical, including photocopying, recording, taping of information and retrieval systems – without written consent of Saskatchewan Polytechnic.

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](#)
- B. [PLAR eligibility and options](#)
- C. [Dates when PLAR assessment is available](#)
- D. [Special directions for this program](#)
- E. [PLAR contact person](#)
- F. [Self-rating course outlines](#)

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

School of Health Sciences—Medical Diagnostic Program

Saskatchewan Polytechnic, Saskatoon Campus

Phone: 306-659-4106

Email: friesen2236@saskpolytech.ca

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
APHY 191	Anatomy and Physiology 1	
APHY 282	Anatomy and Physiology 2	
ECRD 180	Electrocardiography	
ETHC 185	Professional Practices 1	
ETHC 280	Professional Practices 2	
IMMU 183	Immunology	
INFC 180	Infection Control and Safety	
MTER 180	Medical Terminology	
PROC 180	General Laboratory Practice	
PROC 181	Specimen Collection and Handling	
RGAN 180	Radiographic Anatomy	
Semester 1		
PATH 179	Radiographic Pathology 1	
QC 193	Best Practices in Point of Care Testing	
RDBG 184	Radiobiology and Protection	
Semester 2		
CLIN 198	Clinical ECG	

COURSE CODE	COURSE NAME	Delivered by another department/program
Semester 4		
RDGR 180	Radiographic Positioning and Critique 2 (Theory and Lab)	

APHY 191 - Anatomy and Physiology 1

You will explore the structure and function of organs and systems in the normal human body. Your studies will focus on the integumentary, skeletal, muscular, nervous and endocrine systems.

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	Competent	Learning	None
Competent: I can apply this outcome without direction or supervision.			
Learning: I am still learning skills and knowledge to apply this outcome.			
None: I have no knowledge or experience related to this outcome.			
1. Describe the structural organization of the human body.			
2. Describe the chemical level of organization of the human body.			
3. Describe the cellular level of organization of the human body.			
4. Describe the tissue level of organization of the human body.			
5. Describe the structure and function of the skeletal system.			
6. Describe the structure and function of the nervous system.			
7. Describe the structure and function of the endocrine system.			
8. Describe the structure and function of the muscular system.			
9. Describe the structure and function of the integumentary system.			

APHY 282 - Anatomy and Physiology 2

Building on the knowledge gained in APHY 191 (Anatomy and Physiology 1), you will continue your study of the structure and function of the normal human body. Your studies will focus on the cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems.

Credit unit(s): 3.0
Prerequisites: APHY 191
Corequisites: none
Equivalent course(s): none

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Describe the structure and function of the cardiovascular system.			
2. Describe the structure and function of the immune system.			
3. Describe the structure and function of the respiratory system.			
4. Describe the structure and function of the digestive system.			
5. Describe the structure and function of the urinary system.			
6. Describe the structure and function of the reproductive system.			

ECRD 180 - Electrocardiography

Your studies will focus on the theoretical aspects required to perform electrocardiograms. The course content includes recording techniques, recognizing artifacts, and identifying remedies to minimize them, and recognizing basic cardiac arrhythmias.

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

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Describe the structure and function of the heart.			
2. Explain lead theory and cardiac monitoring.			
3. Perform an ECG.			
4. Identify a systematic approach to 12-lead ECG assessments.			
5. Compare normal sinus rhythm to abnormal rhythms or ECG changes which require the physician's attention.			
6. Recognize appropriate and inappropriate electronic pacemaker function.			
7. Identify other cardiac devices and diagnostic procedures.			

ETHC 185 - Professional Practices 1

You will receive an introduction to health care and health care delivery systems. You will study the legal and ethical issues faced by health care professionals. You will discuss interpersonal and employability skills required in health care professions with an emphasis on teamwork, communication and stress management. You will learn methods to deal with grief and loss, in addition to skills and techniques for critical thinking and conflict management.

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

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Describe health and health care delivery.			
2. Describe legal and ethical issues in health care.			
3. Describe effective employability skills required in health care professionals.			
4. Describe interpersonal communication.			
5. Explain how to facilitate communication with individuals having diverse needs.			
6. Demonstrate critical thinking skills.			
7. Describe stress and stress management strategies.			
8. Describe the methods used when dealing with grief and loss.			
9. Analyze the components of conflict and techniques for conflict management.			

ETHC 280 - Professional Practices 2

You will study health care organizational behaviour and the skills required for leadership/management roles. You will discuss co-operative work relationships, conflict resolution, budgeting, strategic planning, the collective bargaining process, and workload measurements. You will develop workplace documents and demonstrate job search techniques.

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

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Develop workplace documents.			
2. Use effective job search strategies.			
3. Describe co-operative working relationships.			
4. Describe the qualities of a leader.			
5. Describe the organizational functions of a manager.			
6. Discuss concepts used in the health care workplace.			

IMMU 183 - Immunology

You will study the body's innate and acquired defense mechanisms. Your studies will focus on the involvement of the immune system in various disease states and clinical conditions. The course also provides an introduction to the principles of antigen-antibody reactions and their application in many laboratory tests.

Credit unit(s): 2.0
Prerequisites: MTER 180
Corequisites: none
Equivalent course(s): none

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Explain the process of immunity.			
2. Discuss the principles of antigen-antibody interactions.			
3. Discuss test methods used to detect antigen-antibody reactions.			
4. Discuss the pathophysiology of hypersensitivity reactions.			
5. Discuss common immunological disease states.			

INFC 180 - Infection Control and Safety

You will study the transmission of microorganisms, blood-borne pathogens (i.e. hepatitis virus and HIV), routine practices, isolation procedures, immunization for medical workers, sterilization and disinfection, biohazard waste, safety and WHMIS.

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

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Demonstrate the proper use of personal protective equipment.			
2. Describe the interaction between microbe and host.			
3. Describe the characteristics of microorganisms.			
4. Describe the blood-borne pathogens - Hepatitis and HIV.			
5. Follow "Routine Practices" and "Additional Precautions".			
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): none

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Apply the rules for construction and analysis of medical terms.			
2. Apply the rules for using medical suffixes, combining forms and prefixes.			
3. Interpret medical abbreviations.			

PROC 180 - General Laboratory Practice

You will receive the theory and practice required to perform basic procedures in a laboratory. The course content includes laboratory glassware, use of balances, centrifuges, thermal equipment, pH meters, microscopes, and solution preparation with related calculations.

Credit unit(s): 2.0
Prerequisites: INFC 180
Corequisites: none
Equivalent course(s): none

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Demonstrate proper use of standard laboratory equipment.			
2. Perform calculations necessary for reagent preparation and dilution.			
3. Demonstrate application of brightfield microscopy.			
4. Discuss application of other types of microscopy.			
5. Perform laboratory practices in a safe manner.			
6. Prepare reagents and standards for use in the laboratory.			

PROC 181 - Specimen Collection and Handling

You will learn how to collect, handle and transport various laboratory specimens to ensure the quality of laboratory results. The collection of blood specimens will be emphasized. You will practice venous collection on a variety of simulation training aids.

Credit unit(s): 3.0
Prerequisites: INFC 180
Corequisites: none
Equivalent course(s): none

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Collect blood samples by venipuncture.			
2. Manage the receipt, distribution, and storage of laboratory specimens.			
3. Collect blood samples by capillary puncture.			
4. Explain the procedures for collecting and handling laboratory specimens other than blood.			
5. Describe the transportation of laboratory specimens.			

RGAN 180 - Radiographic Anatomy

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): 3.0
Prerequisites: MTER 180
Corequisites: APHY 191, APHY 282
Equivalent course(s): none

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Discuss the upper limb and shoulder girdle.			
2. Discuss the lower limb and pelvic girdle.			
3. Discuss the vertebral column.			
4. Discuss the bony thorax and its joints.			
5. Discuss the cranium and facial bones.			
6. Discuss the chest and abdomen.			

PATH 179 - Radiographic Pathology 1

You will learn how to identify the pathological conditions of specific body systems as demonstrated on radiographs. At course completion, you will be able to use the required radiographic qualities to adequately illustrate the pathology in question.

Credit unit(s): 2.0
Prerequisites: RGAN 180
Corequisites: none
Equivalent course(s): none

Use a checkmark (P) to rate yourself as follows for each learning outcome		Competent	Learning	None
Competent:	I can apply this outcome without direction or supervision.			
Learning:	I am still learning skills and knowledge to apply this outcome.			
None:	I have no knowledge or experience related to this outcome.			
1.	Use medical terminology.			
2.	Correlate radiographic images to skeletal system pathology.			
3.	Correlate radiographic images to respiratory system pathology.			
4.	Correlate radiographic images to gastrointestinal and genitourinary systems pathology.			
5.	Correlate radiographic images to hematopoietic system pathology.			
6.	Correlate radiographic images to endocrine system pathology.			

QC 193 - Best Practices in Point of Care Testing

You will study roles and responsibilities of the health care team in point of care testing (POCT). You will learn steps necessary to implement POCT, principles of quality management and correlation of POCT results.

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

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Describe the management of point of care testing (POCT) by the medical laboratory.			
2. Outline a POCT Program.			
3. Apply quality management (QM) principles in POCT.			

RDBG 184 - Radiobiology and Protection

You will be introduced to radiobiology and protection. You will acquire the knowledge and develop the skills needed to practice basic radiation protection during radiological examinations. The course content includes the biological effects of ionizing radiation, basic radiation protection principles and concepts, radiation monitoring, radiation protection guidelines and safety regulations, and techniques of minimizing patient dose during diagnostic imaging.

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

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Describe concepts and underlying principles of radiobiology.			
2. Describe the significance of radiation doses.			
3. Describe radiation protection concepts.			
4. Discuss methods to reduce radiation exposure.			
5. Discuss radiation safety regulations.			
6. Identify standards of safe installation, design, and use of x-ray equipment.			

CLIN 198 - Clinical ECG

You will participate in a supervised clinical experience at an assigned clinical site. Upon successfully completing this experience, you will be able to competently perform ECGs.

Credit unit(s): 2.0
Prerequisites: SIMU 280 or SIMU 100
Corequisites: none
Equivalent course(s): none

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	Competent	Learning	None
1. Work safely in electrocardiography (ECG).			
2. Conduct all workplace actions in a professional manner.			
3. Display communication skills in electrocardiography.			
4. Demonstrate ability to work as part of the electrocardiography team.			
5. Manage the testing and reporting of ECGs.			
6. Perform basic management functions required for the effective running of the electrocardiography laboratory.			
7. Identify the need for adjustment to routine ECG procedure due to patient age or condition.			

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

<p>Use a checkmark (P) to rate yourself as follows for each learning outcome</p> <p>Competent: I can apply this outcome without direction or supervision. Learning: I am still learning skills and knowledge to apply this outcome. None: I have no knowledge or experience related to this outcome.</p>	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.			