

Automotive Service Technician Certificate

PLAR Candidate Guide

Prior Learning Assessment and Recognition (PLAR)

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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.

Course prerequisites and corequisites

Some courses have one or more other courses that must be completed first (prerequisite) or at the same time (corequisite). See <u>course outlines</u> in this guide to identify any pre- or co-requisites for each course. Discuss with your <u>PLAR contact person</u> how to deal with courses with corequisites.

Block assessment

Some programs may assess a cluster of courses together in one block, which may save you time and effort. Ask the PLAR contact person whether there are any block assessment options in this program.

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 <u>Course Outlines</u> 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 <u>Registration/Enrolment Services</u> 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.

Lorne Phillips, Program Head

Automotive Service Technician Saskatchewan Polytechnic, Saskatoon Campus

Phone: 306-659-4284, 306-220-2926 Email: PHILLIPS@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
ATBD 100	Body Components, Accessories and Trim	
BRAK 117	Braking Systems 1 (Non-ABS)	
BRAK 118	Braking Systems 2 (Non-ABS)	
BRAK 119	Braking Systems 3 (ABS)	
<u>COMM 127</u>	Fundamental Communication Skills	Arts & Sciences
DRTR 110	Driveline Systems 1	
ELCT 106	Electrical Systems 1	
ELCT 107	Electrical Systems 2	
ELCT 108	Starting, Charging, Lighting and Wipers	
ENGN 125	Engine Systems 1	
ENGN 126	Engine Systems 2	
ENGN 127	Engine Systems 3	

COURSE CODE	COURSE NAME	Delivered by another department/program
FUEL 102	Introduction to Fuel and Ignition Systems	
MAIN 108	Vehicle Inspection, Apprenticeship and Mentoring	
MATH 169	Trade Mathematics	Arts & Sciences
<u>SAFE 103</u>	Automotive Shop Safety	
SHOP 109	Automotive Shop Fundamentals	
STER 106	Steering and Suspension 1	
<u>STER 107</u>	Steering and Suspension 2	
TRNM 109	Final Drive Assemblies	
TRNM 110	Clutches and Transmissions Prat 1	
TRNM 111	Clutches and Transmissions Part 2	
INDG 100	Introduction to Indigenous Studies	Arts & Sciences
WORK 157	Automotive Service Technician Work Experience	

ATBD 100 - Body Components, Accessories and Trim

Your studies will help you develop skills in adjustment and replacement of vehicle body components, accessories and trim.

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	<u> </u>		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe a	djustment of doors, lids, and moveable glass.			
2. Describe o	iagnosis and repair of body leaks and noises.			
3. Describe h	eadlight adjustment and replacement.			
4. Demonstr	ate body adjustment procedures.			
5. Demonstr	ate moveable glass replacement.			

BRAK 117 - Braking Systems 1 (Non-ABS)

The course covers the operation, diagnosis, and repair of braking system hydraulic components.

Use	e a checkma	rk (\checkmark) to rate yourself as follows for each learning outcome	달		
	mpetent: irning: ne:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1.	Describe th	ne operation, diagnosis, and repair procedures for brake system operation.			
2.	Perform th	e master cylinder evaluation and replacement.			
3.	Perform w	heel cylinder and caliper evaluation and replacement.			
4.	Perform th	e evaluation and replacement of brake valve and switches.			
5.	Perform flu	ushing and bleeding procedures of brake and ABS systems.			

BRAK 118 - Braking Systems 2 (Non-ABS)

Your studies will help you develop the skills to evaluate and repair drum brakes, disc brakes and park brake systems.

Use a checkma	rk (\checkmark) to rate yourself as follows for each learning outcome	_		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Perform th	e evaluation and repair of brake drums and brake rotors.			
2. Perform p	ark brake system repair.			
3. Perform p	ower-assist brake systems repair.			
4. Replace br	ake shoes and pads.			
5. Diagnose l	orake system.			

BRAK 119 - Braking Systems 3 (ABS)

You will gain an understanding of the operation, diagnosis and repair of anti-lock brake, traction control and stability control systems. You will examine the evaluation and repair of tire pressure monitor systems.

Use a checkmark (\checkmark) to rate yourself as follows for each learning outcome		ا پ		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competen	Learning	None
Describe the systems.	ne operation, diagnoses, and repair of antilock, traction and stability control			
2. Perform th systems.	ne evaluation and repair of anti-lock brake, traction, and stability control			

COMM 127 - Fundamental Communication Skills

You will use fundamental employability skills related to obtaining and keeping a job. You will apply skills to work effectively with others and produce job-related documents. You will identify employability and practical skills to prepare effective job search materials and discuss the effect of attitudes and behaviours on a successful job search.

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	.		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Apply job-	related interpersonal communication strategies.			
2. Examine e	ffective digital communication.			
3. Prepare jo	b-related written communication.			
4. Use job se	arch skills.			

DRTR 110 - Driveline Systems

You will learn operation, diagnosis and repair of wheels, tires, bearings, seals, driveshafts and axles. The course content includes the evaluation and repair of tire pressure monitor systems.

Competent: Learning:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome.	Competent	earning	a
None:	I have no knowledge or experience related to this outcome.	Com	Lear	Non
1. Describe	operation, diagnosis and repair procedures for wheels and tires.			
2. Describe	operation, diagnosis and repair of wheel bearings and seals.			
3. Repair wh	eels and tires.			
4. Service w	heel bearings and seals.			
5. Describe	diagnosis and repair of driveshafts and axles.			
6. Repair dr	ve shafts and axles.			
7. Perform t	he evaluation and repair of tire pressure monitor systems.			

ELCT 106 - Electrical Systems 1

You will learn the operation, diagnosis and repair electrical circuits and components.

Use a	a checkmark (√) to rate yourself as follows for each learning outcome	4		
Comp Learn None		Competent	Learning	None
1. D	Describe types of electrical circuits.			
2. C	Construct electrical circuits.			
3. L	Jse electrical test equipment.			
4. D	Describe battery operation, diagnosis, and repair.			
5. D	Describe schematics and flowcharts.			
6. D	Describe conductors and insulators.			
7. C	Diagnose solid state components.			

ELCT 107 - Electrical Systems 2

Building on the skills developed in Electrical Systems 1 you will examine the operation, diagnosis and repair of computer control systems and batteries.

Use a checkma	rk (√) to rate yourself as follows for each learning outcome			
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	a co
1. Describe t	ne operation, diagnosis, and repair of computer control systems.			
2. Repair cor	ductors and connectors.			
3. Construct	electrical circuits.			
4. Use electr	cal test equipment.			
5. Diagnose l	patteries.			
6. Diagnose s	solid state components.			
7. Use schem	atics and flowcharts.			
8. Diagnose of	computer control systems.			

ELCT 108 - Starting, Charging, Lighting and Wipers

You will become familiar with the operation, diagnosis, and repair of starting, charging, lighting, and wiper systems.

Competent:	I can apply this outcome without direction or supervision.	Competent	ng	
Learning:	I am still learning skills and knowledge to apply this outcome.	l g	Learning	9
None:	I have no knowledge or experience related to this outcome.		Leg	N C
1. Describe t	ne operation, diagnoses, and repair of starting systems.			
2. Perform th	ne evaluation and replacement of a starter.			
3. Describe t	ne operation, diagnoses, and repair of charging systems.			
4. Perform th	ne evaluation and replacement of a generator.			
5. Describe t	ne operation, diagnoses, and repair of lighting systems.			
6. Describe t	ne operation, diagnoses, and repair of wiper systems.			
7. Perform th	ne evaluation and repair of lighting systems.			
8. Perform th	ne evaluation and repair of wiper systems.			

ENGN 125 - Engine Systems 1

You will gain an understanding of the types of engines and the operation, diagnosis, and repair of engine systems.

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	<u>+</u>		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe t	ne operation of engine types.			
2. Describe t	ne types and use of automotive engine measuring tools.			
3. Describe t	ne operation, diagnosis, and repair of cooling systems.			
4. Describe t	ne operation, diagnosis, and repair of the engine lubrication system.			
5. Describe t	ne operation, diagnosis, and repair of induction systems.			
6. Describe t	ne operation, diagnosis, and repair of exhaust systems.			
7. Describe e	ngine component operation.			
8. Repair coo	ling system.			
9. Test lubric	ation system.			
10. Inspect inc	luction system.			
11. Inspect ex	naust system.			

ENGN 126 - Engine Systems 2

Your studies will help you develop skills in evaluating the operation, diagnosis, and repair of engine assemblies.

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	<u> </u>		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe th	ne operation, diagnosis, and construction of cylinder head assembly.			
2. Describe th	ne operation, diagnosis, and construction of engine block assembly.			
3. Describe th	ne engine assembly procedures.			
4. Describe th	ne diagnosis and repair of the cylinder head.			
5. Describe th	ne diagnosis and repair of the block assembly.			
6. Inspect the	e cylinder head assembly.			
7. Inspect en	gine block assembly.			
8. Assemble	engine.			
9. Evaluate cy	linder head assembly.			
10. Evaluate e	ngine block assembly.			
11. Use precisi	on measuring tools.			

ENGN 127 - Engine Systems 3

The course focuses on the diagnosis, repair, and replacement of engine assemblies.

Use a checkma	rk (√) to rate yourself as follows for each learning outcome			
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	Q Q
1. Describe t	ne diagnosis and repair of an engine.			
2. Describe e	ngine replacement procedures.			
3. Diagnose	engine.			
4. Replace er	ngine.			
5. Repair cyli	nder head.			
6. Repair blo	ck assembly.			

FUEL 102 - Introduction to Fuel and Ignition Systems

You will be introduced to the basic operation, diagnosis and repair of gasoline fuel injection and ignition systems.

050	a checkmark (✓) to rate yourself as follows for each learning outcome	<u>+</u>	:		
	rning: I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent		Learning	None
1.	Describe the basic operation, diagnosis, and repair of the fuel injection systems	m.			
2.	Describe the basic operation, diagnosis, and repair of the emission system.				
3.	Describe maintenance of the fuel delivery system.				
4.	Maintain fuel deliver systems.				
5.	Describe operation, diagnosis, and repair of distributor type ignition system				
6.	Describe operation, diagnosis, and repair of distributorless ignition systems.				
7.	Use ignition system testing equipment.				

MAIN 108 - Vehicle Inspection, Apprenticeship and Mentoring

You will identify and perform periodic vehicle maintenance while following recommended maintenance schedules for vehicle fluids, steering, suspension, brakes, exhaust systems including the inspection of lights, tires, wiper/washers and leaks. You will discuss the apprenticeship and mentoring programs.

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	ا ب		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe	vehicle maintenance schedules and procedures.			
2. Perform v	ehicle maintenance procedures.			
3. Describe a	pprenticeship and mentoring programs.			

MATH 169 - Trade Mathematics

You will learn mathematical concepts commonly used in your trade. After reviewing basic arithmetic and basic equations, you will solve various algebra problems as applied to your trade. You will perform Imperial and Metric conversions, calculate the perimeter, area, and volume of many common shapes, and use Pythagorean theorem

Use a checkm		mark (✓) to rate yourself as follows for each learning outcome	٠,		
	mpetent: rning: ne:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1.	Use arithm	netic to solve trade-related problems.			
2.	Use measu	rement systems.			
Solve trade-related equations and formulas.					
4.	Solve geor	netric problems.			

SAFE 103 - Automotive Shop Safety

The course focuses on shop safety precautions and procedures used in the automotive service trade.

Use a checkma	rk (\checkmark) to rate yourself as follows for each learning outcome			
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe o	ccupation related safety procedures.			
2. Demonstra	ate safe handling of refrigerants.			
3. Demonstra	ate restraint system safety precautions.			
4. Describe h	ybrid and electric vehicle safety procedures.			

SHOP 109 - Automotive Shop Fundamentals

You will become familiar with occupation related tools, equipment, and road test procedures. You will gain an understanding of trade related documents.

Use a checkma	rk (√) to rate yourself as follows for each learning outcome			
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe (Occupation related tools and equipment.			
2. Describe r	oad test procedures.			
3. Demonstr	ate knowledge of trade related documents.			

STER 106 - Steering and Suspension 1

You will be introduced to the operation, diagnosis and repair of suspension and steering systems.

Use a checkm	ark (✓) to rate yourself as follows for each learning outcome	<u> </u>		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe	the operation, diagnosis, and repair of suspension designs.			
2. Describe	the operation, diagnosis, and repair of steering systems.			
3. Describe	the operation, diagnosis, and repair of steering linkages.			
4. Perform	the evaluation and repair of suspension systems.			
5. Perform	the evaluation and repair on steering systems.			
6. Perform	the evaluation and repair on steering linkages.			

STER 107 - Steering and Suspension 2

You will learn the operation, diagnosis and repair of steering gears and columns. Your studies will help you acquire knowledge and skills in wheel alignment principles and procedures.

Use a checkma	rk (√) to rate yourself as follows for each learning outcome	ا ـ		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Describe t	ne operation, diagnosis, and repair of steering columns.			
2. Describe t	ne operation, diagnoses, and repair of steering gears.			
3. Describe t	ne principles of wheel alignment.			
4. Perform th	ne evaluation and repair of steering columns.			
5. Perform w	heel alignment procedures.			

TRNM 109 - Final Drive Assemblies

The course focuses on the operation, diagnosis, and repair of final drive assemblies.

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	ا ـــ		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
Describe t	he operation, diagnosis, and repair of differential assemblies.			
2. Perform t	ne evaluation and repair of differential systems.			
3. Identify ty	pes of differential assemblies.			
4. Describe	peration of locking/limited slip differentials.			

TRNM 110 - Clutches and Transmissions Part 1

You will examine the operation, diagnosis, and repair of clutch assemblies. The course also combines the removal and replacement of manual transmissions.

Use a che	ckmark (√) to rate yourself as follows for each learning outcome	<u> </u>		
Competer Learning: None:		Competent	Learning	None
1. Desc	ribe the operation, diagnosis, and repair of clutch systems.			
2. Ident	tify clutch system components.			
3. Remo	ove clutch assembly and flywheel.			
4. Repa	air clutch assembly.			
5. Repa	air clutch activating devices.			
6. Inspe	ect clutch housing and components.			
7. Perfo	orm clutch maintenance procedures.			
8. Insta	Il clutch assembly and flywheel.			
9. Insta	Il manual and transmission and housing.			
10. Diagr	nose clutch operation.			
11. Desc	ribe transmission, transaxle, transfer case removal and installation procedures.			
12. Remo	ove manual transmission.			
13. Insta	Il manual transmission.			

TRNM 111 - Clutches and Transmissions Part 2

Your studies will focus on the maintenance procedures for transmissions, transaxles, transfer case and differentials. You will develop skills in removal and installation of automatic transmissions.

Use	a checkma	rk (√) to rate yourself as follows for each learning outcome	+		
Competent: Learning: None:		I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1.	Describe r differentia	naintenance procedure for transmission, transaxle, transfer case and al.			
2.		naintenance procedures on differential assemblies, transfer case and transmission.			
3.	Remove a	utomatic transmissions.			
4.	Install aut	omatic transmissions.			

INDG 100 - Introduction to Indigenous Studies

You will receive an introduction to the Indigenous cultural groups within Saskatchewan. You will learn about the colonization of Indigenous peoples by the Canadian state. Your studies will help you discuss current issues and explore possible solutions.

Use a checkmark (\checkmark) to rate yourself as follows for each learning outcome		ا بـ		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
Describe In	ndigenous nations of Saskatchewan.			
2. Explain ho	w colonization has impacted Indigenous peoples.			
3. Discuss cu	rrent issues and possible solutions.			

WORK 157 – Automotive Service Technician Work Experience

You will become familiar with the industry as you spend two weeks in an automotive service shop. You will gain industry familiarity while practicing your employability, trade competency, interpersonal and safety skills. You will follow workplace policies and procedures.

Credit unit(s): 0.0

Prerequisites: SAFE 103(concurrent), SHOP 109(concurrent)

Corequisites: none Equivalent course(s): none

Use a checkmark (\checkmark) to rate yourself as follows for each learning outcome		ايد		
Competent: Learning: None:	I can apply this outcome without direction or supervision. I am still learning skills and knowledge to apply this outcome. I have no knowledge or experience related to this outcome.	Competent	Learning	None
1. Demonstr	ate employability skills.			
2. Demonstr	ate trade competency skills.			
3. Demonstr	ate effective interpersonal skills.			
4. Demonstr	ate safe working practices.			
5. Follow wo	rkplace policies and procedures.			