

# **Technology Management Post Graduate Certificate**

# **PLAR Candidate Guide**

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.

#### 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 course outlines in this guide to identify any pre- or co-requisites for each course. Discuss with your PLAR contact person 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

Review the PLAR process and FAQs and the information in this guide.

**Self-rate** your learning for each course using the Course Outlines in this guide.

**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.

Apply for admission to the program. See directions for applying.

**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.

Finalize an assessment plan with your assigned assessor.

**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.

#### Michael Barclay, Program Head

Saskatchewan Polytechnic, Moose Jaw Campus

Phone: 306 – 775 – 7701

Email: barclay7342@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<br>CODE  | COURSE NAME                                     | Delivered by another department/program |
|-----------------|---|---|
|                 | Semester 1                                      |   |
| ANTL 600        | Business Mathematics and Data Analytics         |   |
| BCOM 600        | Business Communication                          | Arts & Sciences                         |
| CDBM 600        | Database Design and Development                 |   |
| <u>CNET 600</u> | Enterprise Networking                           |   |
| <u>COMP 600</u> | Software Architecture and Programming           |   |
| INDG 600        | Indigenous Studies                              | Arts & Sciences                         |
|                 | Semester 2                                      |   |
| ANLT 601        | Data Analytics and Business Intelligence        |   |
| ETHC 600        | Ethics, Privacy, and Legal Issues in IT         |   |
| MGMT 600        | IT Operations Management and Strategic Planning |   |
| PROJ 600        | Agile Project Management for IT                 |   |
| TCOM 600        | Business Technology Communication               | Arts & Sciences                         |

# **ANLT 600 - Business Mathematics and Data Analytics**

You will learn the essential skill of estimating costs and benefits for a process change. Your studies will include the development of theoretical knowledge and practical skills in these areas: querying from existing data sources, outlining assumptions, developing cost benefits models, analyzing outcomes over multiple years, separating assumptions from the model, and developing flexible formulae. A component of your studies will include an introduction to relational databases and advanced use of spreadsheet software.

| Use a checkmark (✓) to rate yourself as follows for each learning outcome  Competent: I can apply this outcome without direction or supervision. |   | ا ب       |          |      |
|--|---|-----------|----------|------|
| Competent:<br>Learning:<br>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  | Business Analytics and how it is used in business.  |           |          |      |
| 2. Perform t   | ime value of money calculations using a spreadsheet.  |           |          |      |
| 3. Analyze tl  | ne cost/benefit and calculate return on investment (ROI) using a spreadsheet.   |           |          |      |
| 4. Apply con<br>data anal  | nmon metrics (measures of central tendency and measures of dispersion) in ysis.   |           |          |      |
| 5. Perform o   | lescriptive analysis using software.  |           |          |      |
| 6. Perform p   | predictive analysis using spreadsheet software.   |           |          |      |

## **BCOM 600 - Business Communications**

You will practice written and oral communication skills that managers use on the job. You will study how to write effective letters, emails, and reports. You will plan and conduct meetings and deliver a verbal presentation.

| Use a checkm                     | ark ( $\checkmark$ ) to rate yourself as follows for each learning outcome   | <u> </u>  |          |     |
|----------------------------------|--|-----------|----------|-----|
| Competent:<br>Learning:<br>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 | and |
| Identify to message              | he purpose and characteristics involved in creating an effective business  |           |          |     |
| 2. Explain t                     | ne process of writing.   |           |          |     |
| 3. Apply gu                      | idelines for adapting short messages to audience needs.  |           |          |     |
| 4. Recogniz memos.               | e business conventions used to organize information in emails, letters, or   |           |          |     |
| for writir                       | tters or memos that demonstrate their knowledge of organizational patterns<br>informative messages, persuasive messages, or messages that deliver<br>information in the most positive style. |           |          |     |
| -                                | e a short report that demonstrates an appropriate organization, writing style, imentation.   |           |          |     |
| 7. Apply int                     | erpersonal communication skills to workplace scenarios.  |           |          |     |
| 8. Explain h                     | ow to plan and conduct a business meeting.   |           |          |     |
| 9. Deliver a                     | n oral presentation.   |           |          |     |

## **CDBM 600 - Database Design and Development**

You will learn the essentials of database management systems. You will design normalized database models and data access techniques. You will study database scripting and automation as well as backup and disaster recovery techniques. You will explore emerging trends in database technology including cloud storage, alternatives to the relational database model, and the role of big data in business.

| Competent:<br>Learning:<br>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 | ; |
|----------------------------------|---|-----------|----------|---|
| 1. Describe t                    | ne role of enterprise data.   |           |          |   |
| 2. Manage d                      | ata integrity.  |           |          |   |
| 3. Design a n                    | ormalized data model.   |           |          |   |
| 4. Design a d                    | ata backup and recovery plan.   |           |          |   |
| 5. Describe o                    | ommon security threats to a database.   |           |          |   |
| 6. Describe o                    | ommon security threats to a database.   |           |          |   |
| 7. Automate                      | database functions.   |           |          |   |
| 8. Formulate                     | security and privacy policy documents for data management.  |           |          |   |
| 9. Describe a                    | Iternatives to the relational data model.   |           |          |   |
| 10. Describe o                   | ata warehousing and big data analytics.   |           |          |   |

## **CNET 600 - Enterprise Networking**

You will learn about the design and support of enterprise network services. Your studies will include learning about different network configurations and how they are secured against various threat groups. You will also learn how to plan for and monitor network performance and availability. You will gain hands on experience configuring a network operating system and developing security models.

| Use a checkma                    | rk (√) to rate yourself as follows for each learning outcome  | ŧ         |          |      |
|----------------------------------|---|-----------|----------|------|
| Competent:<br>Learning:<br>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                      | common components on a network.   |           |          |      |
| 2. Install a n                   | etwork operating system.  |           |          |      |
| 3. Create a h                    | igh-level network design.   |           |          |      |
| 4. Describe                      | common security threats to a network.   |           |          |      |
| 5. Implemer                      | t risk management strategies.   |           |          |      |
| 6. Plan netw                     | ork performance monitoring and maintenance.   |           |          |      |
| 7. Plan data                     | backup and business continuity.   |           |          |      |
| 8. Create a u                    | ser identity model.   |           |          |      |
| 9. Contrast l                    | pare metal and cloud based services.  |           |          |      |

# **COMP 600 - Software Architecture and Programming**

You will review fundamental programming concepts and apply them to an enterprise technology stack. You will learn how to design and deploy loosely coupled components to create software solutions. Your studies will include presentation layer technologies, business logic, service layer components, and data access. You will study best practices for secure development and research and compare technology options for building software solution architectures.

| Use a checkma                    | rk (√) to rate yourself as follows for each learning outcome  | <u>+</u>  |          |      |
|----------------------------------|---|-----------|----------|------|
| Competent:<br>Learning:<br>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                    | he software development life cycle (SDLC).  |           |          |      |
| 2. Explain Ob                    | oject Oriented Concepts.  |           |          |      |
| 3. Explain De                    | sign Patterns & Frameworks.   |           |          |      |
| 4. Configure                     | a software development Frameworks.  |           |          |      |
| 5. Design pro                    | esentation layer applications.  |           |          |      |
| 6. Design bu                     | siness logic components.  |           |          |      |
| 7. Design sei                    | vice layer components.  |           |          |      |
| 8. Design da                     | ta access components.   |           |          |      |
| 9. Discuss se                    | cure development practices.   |           |          |      |
| 10. Research                     | echnology options for a software architecture.  |           |          |      |

# INDG 600 - Indigenous Studies

You will complete the Blanket Exercise to honour the Indigenous peoples in Canada. You will study the history of the relationships between European settlers and the Indigenous peoples from initial contact to present day. You will analyze the 94 Calls to Action of the Truth and Reconciliation Commission to redress the legacy of residential schools and advance Canadian reconciliation.

| Use | e a checkma                | rk (√) to rate yourself as follows for each learning outcome  | <b>L</b>  |          |      |
|-----|----------------------------|---|-----------|----------|------|
|     | mpetent:<br>irning:<br>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.  | Complete                   | the Blanket Exercise to honour Indigenous peoples in Canada.  |           |          |      |
| 2.  | Examine tl                 | ne history of relationships between European Settlers and Indigenous peoples.   |           |          |      |
| 3.  | Analyze th                 | e Truth and Reconciliation Commission of Canada and the 94 Calls to Action.   |           |          |      |

# **ANLT 601 - Data Analytics and Business Intelligence**

You will learn how to analyze data from a business intelligence perspective. You will analyze large data sets to answer strategic business questions. You will connect to a variety of data sources and learn about the most effective techniques to communicate statistical data to a business.

Credit unit(s): 3.0

Prerequisites: ANLT 600
Corequisites: none
Equivalent course(s): none

| Use a checkma                    | ark (✓) to rate yourself as follows for each learning outcome   | t l       |          |      |
|----------------------------------|---|-----------|----------|------|
| Competent:<br>Learning:<br>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. Explain ke                    | ey concepts in data analysis and business intelligence (BI).  |           |          |      |
| 2. Describe                      | characteristics of effective reporting.   |           |          |      |
| 3. Import Ex                     | cel data into Power BI.   |           |          |      |
| 4. Create da                     | shboards to visualize data.   |           |          |      |
| 5. Connect E                     | BI tools to live sources of business Intelligence.  |           |          |      |
| 6. Connect E                     | BI tools to enterprise data sources   |           |          |      |
| 7. Make bus                      | iness decisions based on business intelligence.   |           |          |      |
| 8. Conduct of                    | data analysis with a statistical programming language   |           |          |      |

# ETHC 600 - Ethics, Privacy, and Legal Issues in IT

You will learn the importance of ethical decision making in business. You will learn about relevant legal issues relating to ethical behavior in business and the stewardship of personal data. You will explore organizational guidelines for dealing with personal data and how these guidelines are regulated through government audit procedures.

| Use | e a checkma                | rk (✓) to rate yourself as follows for each learning outcome  |           |          |      |
|-----|----------------------------|---|-----------|----------|------|
| Lea | mpetent:<br>arning:<br>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.  | Explain the                | e importance of ethical behavior to an organization.  |           |          |      |
| 2.  | Differentia                | te between ethical and legal requirements.  |           |          |      |
| 3.  | Describe in                | nportance of individual privacy.  |           |          |      |
| 4.  | Describe C                 | anadian privacy acts and requirements.  |           |          |      |
| 5.  | Conduct a                  | privacy impact assessment for a business activity.  |           |          |      |
| 6.  | Discuss the                | e role of professional organizations in the provision of ethical guidelines.  |           |          |      |

# MGMT 600 - IT Operations Management and Strategic Planning

You will learn the fundamentals of information technology (IT) operations management in an organization. This will include the information technology infrastructure library (ITIL) techniques for providing effective services and continual service improvement. You will also learn the fundamentals of strategic planning and the construction and monitoring of a balanced score card for an organization or department. You will also develop a strategy for moving an organization's technical capacity from a limited current state to an improved future state.

| Use | a checkma                 | rk (✓) to rate yourself as follows for each learning outcome  | ±         |          |      |
|-----|---------------------------|---|-----------|----------|------|
|     | npetent:<br>rning:<br>ie: | 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                | he operations management functions.   |           |          |      |
| 2.  | Create ser                | vice level agreements.  |           |          |      |
| 3.  | Create a se               | ervice strategy.  |           |          |      |
| 4.  | Discuss co                | ntinual service improvement.  |           |          |      |
| 5.  | Describe t                | he basics of strategic planning.  |           |          |      |
| 6.  | Develop a                 | balanced score card.  |           |          |      |
| 7.  | Create eff                | ective key performance indicators (KPIs).   |           |          |      |
| 8.  | Explain red               | quest for information (RFx) processes.  |           |          |      |
| 9.  | •                         | strategic plan to move an organization's technological capability from current desired future state.  |           |          |      |

# PROJ 600 - Agile Project Management for IT

You will learn how to plan and execute an agile project while creating a working piece of software. Working in groups you will learn how to plan project sprints and conduct effective scrum meetings. You will learn how track progress using standard agile tracking tools and techniques.

Credit unit(s): 3.0

**Prerequisites:** COMP 600, CDBM 600

Corequisites: none Equivalent course(s): none

| Competent:<br>Learning:<br>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                    | he core agile concepts.   |           |          |      |
| 2. Describe t                    | he agile team.  |           |          |      |
| 3. Initiate an                   | agile project.  |           |          |      |
| 4. Plan sprin                    | ts for an agile project.  |           |          |      |
| 5. Execute a                     | n agile project.  |           |          |      |
| 6. Track proj                    | ect velocity.   |           |          |      |
| 7. Monitor p                     | roject burndown and backlog.  |           |          |      |
| 8. Describe r                    | elate agile project best practices.   |           |          |      |

# **TCOM 600 - Business Technology Communications**

You will learn how to manage communication in a business environment using best practices and common software tools. You will learn how to produce effective content delivered with appropriate tools.

| Competent:<br>Learning:<br>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. Write effe                    | ective communication from template documents.   |           |          |      |
| 2. Create lor                    | ng form documents using word processing software.   |           |          |      |
| 3. Produce a                     | workflow diagram in Visio.  |           |          |      |
| 4. Create eff                    | ective reports and dashboards with Excel.   |           |          |      |
| 5. Integrate                     | communication tools into an effective presentation.   |           |          |      |
| 6. Prepare a                     | Request for Proposal document using a standard process.   |           |          |      |