

Business Information Systems - Diploma

PLAR Candidate Guide

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

You must 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 assessment 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. **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.
- 5. **Finalize** a detailed Assessment Plan with your assigned assessor.
- 6. **Complete** assessment before your PLAR registration expires.

E. PLAR contact person

Contact the person below to arrange a consultation **after** you have read this guide and general PLAR information **and** rated yourself for each course (see next session). 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, Acting Program Head Business Information Systems Saskatchewan Polytechnic, Moose Jaw Campus

Phone: 306-691-8250

Email: barclay7342@saskpolytech.ca

Gavin Osborne, Academic Chair/**Bill Walsh**, Academic Chair Business Information Systems

Saskatchewan Polytechnic, Moose Jaw, and Regina Campuses

Phone: 306 – 691 - 8249; 306-535-3680 Email: osborne@saskpolytech.ca; walsh@saskpolytech.ca

Note: If the course you would like to PLAR is delivered by another program, click on that program's Candidate Guide (see below) to find your PLAR contact person.

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
	Semester 1	
ACCT 122	Introductory Financial Accounting 1	Business Diploma
BCOM 120	Business communications 1	
<u>COMP 122</u>	Introduction to Programming for Information Systems	
<u>COMP 123</u>	Introduction to Business Computing	
<u>COMP 255</u>	Visual Application Development	
<u>STAT 120</u>	Business Statistics	Arts & Sciences
	Semester 2	
ADMN 220	Organizational Behaviour	Business Diploma
<u>COMP 215</u>	Internet Application Development 1	
<u>COMP 233</u>	Object Oriented Programming Concepts	
<u>COMP 234</u>	Database	
COMP 249	Information Security, Privacy and Ethics	

COURSE CODE	COURSE NAME	Delivered by another department/program
COMP 254	Computer Architecture and Data Communications	
JOBR 120	Job Readiness	
COOP 150	Co-operative Education Work Term	
	Semester 3	
<u>COMP 214</u>	Project Management	
<u>COMP 235</u>	Internet Application Development 2	
<u>COMP 236</u>	Operating Systems and Environment Configuration	
<u>COMP 237</u>	Systems Analysis and Requirements Management	
<u>COMP 258</u>	Object Oriented Software Development	
COMP 259	Mobile Application Development 1	
	Semester 4	
ACCT 225	Managerial Accounting	Business Diploma
ADMN 209	Organizational Change	Business Diploma
BCOM 121	Business Communication 2	
<u>COMP 253</u>	Systems Project	
<u>COMP 262</u>	Mobile Application Development 2	

ACCT 122 - Introductory Financial Accounting 1

Your studies will focus on an introduction to financial accounting designed to provide you with accounting skills to handle business transactions. The course will include bookkeeping techniques, accounting for a merchandising concern and control over cash and receivables. ACCT 122 is a companion to ACCT 125 (Introductory Financial Accounting 2) which continues the study of basic financial accounting.

Credit unit(s): 5.0
Pre Requisites: none
Co Requisites: none
Equivalent course(s): ACCT 122CE

Use	e a checkmar	k (√) to rate yourself as follows for each learning outcome	Ħ		
	mpetent: nrning: 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 ac	counting and its uses.			
2.	Apply the "	Accounting Equation" to business transactions.			
3.	Prepare bus	siness transactions for a service company.			
4.	Prepare per	iod-end adjustments.			
5.	Implement	period-end accounting procedures.			
6.	Demonstra	e accounting for a merchandising company.			
7.	Apply altern	native methods of valuing inventories.			
8.	Apply proce	dures for internal control over cash.			
9.	Prepare tra	nsactions relating to receivables.			
10.	Describe et	nical accounting practices.			

BCOM 120 - Business Communications 1

You will develop fundamental employability skills by studying the principles of communication. The course content includes developing effective writing skills. You will apply the principles and skills by writing letters and memorandums for routine and negative purposes. You will develop teamwork employability skills and examine ways to apply communication skills to team and cross-cultural situations.

Credit unit(s):4.0Pre Requisites:noneCo Requisites:none

Equivalent course(s): BCOM 104, TCOM 102, TCOM 180

Use	e a checkma	rk (√) to rate yourself as follows for each learning outcome	±		
	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.	Explain the	process of communication.			
2.	Illustrate t	ne importance of cultural awareness in communications			
3.	Discuss co	mmunication techniques in interpersonal and workplace situations.			
4.	Compose e	effective sentences and paragraphs.			
5.	Write rout	ine business messages.			
6.	Write nega	itive business messages.			
7.	Create form	mal documents using word processing applications.			
8.	Explain ho	w to establish and maintain client relationships.			
9.	Use email	features and electronic calendaring to manage business communication.			

COMP 122 - Introduction to Programming for Information Systems

You will learn introductory programming and design concepts using the Java language and GIT for source control. Your studies will develop your logic and problem-solving skills using elements of the Unified Modeling Language (UML) to develop structured and object-oriented Java programs.

Credit unit(s): 6.0
Pre Requisites: none
Co Requisites: none

Equivalent course(s): COMP 141, COSC 180

Use a checkma	rk (√) to rate yourself as follows for each learning outcome	j		
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. Explain Jav	a programming terminology and concepts.			
2. Use an inte	egrated development environment to produce elementary Java programs.			
3. Use GIT to	manage a java project.			
4. Follow cod	ing standards.			
5. Design a fu	nctional test case.			
6. Use selecti	on control structures to produce Java programs.			
7. Use iterativ	ve control structures to produce Java programs.			
8. Use modul	arized algorithms to produce Java programs.			
9. Use arrays	to manage data in Java programs.			
10. Explain obj	ect-oriented programming terminology and concepts.			
11. Use classes	s and objects in Java programs.			

COMP 123 - Introduction to Business Computing

You will learn how to use computers to analyze business data and collaborate on documents and projects. You will gain hands on experience with advanced features of the Windows Operating System and the Microsoft Office suite of tools including file systems and directories, spreadsheets, databases, and SharePoint site management. You will also study best practices for collaborative document production and document management.

Credit unit(s): 4.0
Pre Requisites: none
Co Requisites: none
Equivalent course(s): COAP 120

Use a checkr	nark (√) 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. Use the	command prompt to perform basic Operating System (OS) commands.			
2. Use Mic	rosoft (MS) Excel to create a spreadsheet to answer business questions.			
3. Use MS	Word to format documents.			
4. Normali	ze a data model.			
5. Use MS	Access to create a database represented by a data model.			
6. Use Sha	rePoint lists and libraries to centralize and regulate access to information.			
7. Integrat	e SharePoint with Microsoft Office.			
8. Customi	ze SharePoint webpages.			
9. Access e	xternal data with SharePoint.			

COMP 255 - Visual Application Development

You will study the Windows based application development environment. You will develop applications using graphical user interfaces and incorporate Object-Oriented Event-Driven (OOED) programming. The course content includes standard OOED programming concepts, graphics, database access, inter-application communications and data structures.

Credit unit(s):5.0Pre Requisites:noneCo Requisites:noneEquivalent course(s):none

Use a checkma	rk (√) to rate yourself as follows for each learning outcome	ן ד		
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	Non and
1. Use visual	studio IDE to make event driven programs.			
2. Use coding	s standards.			
3. Design a fu	unctional test case.			
4. Use decision	on control structures to make Visual Studio .NET programs.			
5. Use iterati	ve control structures to make Visual Studio .NET applications.			
6. Use subro	utines to make Visual Studio.NET applications.			
7. Use arrays	to make Visual Studio.NET applications			
8. Use classe	s and objects to make Visual Studio.NET applications.			
9. Use files to	make Visual Studio.NET applications that use persistent data.			
10. Make Visu	al Studio.NET applications that use SQL Server data.			

STAT 120 - Business Statistics

You will gain knowledge of statistical concepts and techniques applicable to accounting and management. You will study descriptive statistics, measures of central tendency and dispersion, probability distributions, the Central Limit Theorem, and linear regression. This course is intended to build problem solving and critical thinking skills, and to demonstrate the importance of statistics in professional practices.

Credit unit(s): 4.0
Pre Requisites: none
Co Requisites: none

Equivalent course(s): ACP 374, STAT 120CE

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	ן ד		
Competent:	I can apply this outcome without direction or supervision.	pete	Jing	
Learning: None:	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. Discuss sta	tistical terminology and procedures.			
2. Apply stati	stical methods for organizing and presenting data.			
3. Calculate r	neasures of central tendency.			
4. Calculate r	neasures of dispersion.			
5. Examine b	asic probability.			
6. Examine p	robability distributions of random variables.			
7. Examine th	ne normal probability distribution.			
8. Apply the	Central Limit Theorem to business and financial problems.			
9. Apply conf	idence intervals to business and financial problems.			
10. Apply tests	of hypothesis to business and financial problems.			
11 Analyze na	ired statistical data using simple linear regression.			

ADMN 220 - Organizational Behaviour

You will study human behaviour in organizations and develop the skills needed to deal with people at work. Your studies include content on individual behaviour, values, interpersonal relationships and communications, groups and team dynamics, organizational culture, leadership, and change. You will study these aspects of human behavior within the context of diverse formal organizations.

Credit unit(s): 4.0
Pre Requisites: none
Co Requisites: none

Equivalent course(s): ADMN 220CE, BUS 182

Use a che	eckmark (✓) to rate yourself as follows for each learning outcome			
Compete Learning: None:		-	Learning	None
1. Desc	ribe organizational behaviour.			
2. Desc	ribe organizational culture.			
3. Discu	uss diversity in organizations.			
4. Expla	ain how emotions shape our behaviour.			
5. Expla	ain how personality and values influence behavior.			
6. Discu	uss how perception influences the decision-making process.			
7. Appl	y various motivational models to improve performance.			
8. Dem	onstrate effective teambuilding skills.			
9. Use 1	the appropriate leadership style in a situation using leadership theory.			
10. Expla	ain how power and organizational politics relate to performance			
11. Expla	ain conflict management.			
12. Expla	ain organizational change and strategies to overcome resistance to change.			

COMP 215 - Internet Application Development 1

You will learn the fundamentals of Web design and application development. You will learn to create Web content that communicates effectively and is easy to maintain. Your studies will include learning HTML5, JavaScript, JQuery, AJAX and JavaScript sockets.

Credit unit(s): 5.0

Pre Requisites: COMP 122
Co Requisites: none
Equivalent course(s): none

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	No.
1. Discuss the	technologies used in Web design and Web application development.			
2. Discuss the	concepts of information architecture and site maintenance.			
3. Discuss We	eb usability and interaction design.			
4. Create We	b content with HTML.			
5. Apply resp	onsive design to the creation of web pages.			
6. Create We	b pages that use CSS3 formatting			
7. Differentia	te between Java Script and JQuery.			
8. Create web	pages that use JQuery.			
9. Create web	pages that use persistent data.			
10. Create web	pages that use AJAX.			
11. Create web	pages that use sockets.			

COMP 233 - Object Oriented Programming Concepts

You will learn advanced topics in Java programming and Object Oriented programming techniques. Your studies will include file manipulation, exception handling, graphical user interfaces, event handling, multi-threaded environments, and network programming. You will continue to study systems development, algorithm design and the Unified Modelling Language (UML). After completing this course, you will have developed a thorough understanding of Java's capabilities and strengths.

Credit unit(s): 5.0

Pre Requisites: COMP 122
Co Requisites: none
Equivalent course(s): none

Use a checkma	rk (√) to rate yourself as follows for each learning outcome	Ħ		
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. Use UML d	iagrams to create composition relationships.			
2. Use compo	osition in Java.			
3. Use UML d	iagrams to design inheritance relationships.			
4. Use inherit	ance in Java.			
5. Use UML r	elationships to design abstraction and interface relationships.			
6. Use polym	orphism in Java.			
7. Manipulat	e files in Java.			
8. Manipulat	e databases in Java.			
9. Manage m	ulti-threading techniques in Java.			
10. Use netwo	rk programming in Java.			
11. Construct (graphical user interfaces in Java.			

13

COMP 234 - Database

You will gain experience designing computer systems that involve database processing. You will focus on the hierarchical, relational, and network design. You will also gain experience in database processing using ORACLE and Query Languages (in particular SQL and SQL*PLUS).

Credit unit(s): 5.0

Pre Requisites: COMP 123
Co Requisites: none
Equivalent course(s): none

	ark (√) to rate yourself as follows for each learning outcome	ant		
Competent:	I can apply this outcome without direction or supervision.	Competent	Learning	
Learning:	I am still learning skills and knowledge to apply this outcome.	l w	Sarr	None
None:	I have no knowledge or experience related to this outcome.	ن	ے	Z
1. Describe t	he fundamentals of database management.			
2. Develop S	QL statements to create and populate database tables.			
3. Write SQL	statements to retrieve information from database tables.			
4. Explain th	e process of saving and undoing changes made to the database.			
5. Discuss da	tabase objects			
6. Explain th	e concept of optimization.			
7. Explain th	e process of normalization			
8. Create SQ	L statements using functions.			
9. Examine g	rouping in SQL.			
10. Discuss th	e manner in which the structure of a table can be changed.			
11. Write SQL	statements using set operations.			
12 Write intr	oductory PL/SQL statements, stored procedures and triggers.			

COMP 249 - Information Security, Privacy and Ethics

You will learn how to plan and manage security and privacy policies. You will study the role of CIPS in providing ethical guidelines for professional conduct, and you will learn about the responsibilities of working with management information systems and their data. You will also discuss the ergonomics and health risks associated with computer based-work. Your studies will include the components of an information system security model and the threat groups that compromise them. In addition, you will be exposed to examples of security technology and how to implement it as part of a security plan.

Credit unit(s):3.0Pre Requisites:noneCo Requisites:noneEquivalent course(s):none

Competent: Learning: None:	rk (✓) to rate yourself as follows for each learning outcome 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 pro	ofessionalism and the role of CIPS.			
2. Discuss er	gonomics and health risks associated with computer-based work.			
3. Apply ethic	cs to IT related decision making.			
4. Explain the	eories of surveillance.			
5. Explain pri	vacy laws.			
6. Explain the	e role of data warehousing/data mining in marketing.			
7. Discuss the	reat assessment and risk management.			
8. Explain sec	curity maintenance cycle.			

COMP 254 - Computer Architecture and Data Communications

You will be exposed to a wide variety of topics related to computer systems and networking. As you install and configure these system components, you will learn about computer hardware, workstation and server operating systems, and computer networking and data communications. Your studies will focus on the architecture of the Intel-based computer hardware and the Microsoft workstation and server operating system platforms.

Credit unit(s): 6.0

Pre Requisites: COMP 123
Co Requisites: none
Equivalent course(s): none

Com	petent: 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
	Apply safety and security procedures in the handling and management of computer nardware and software.			
10.	Locate the various components in a personal computer.			
11.	Perform calculations with numbers with different bases.			
12.	Perform basic operations with machine code.			
	Describe the differences between "server" and "workstation" hardware and operating systems.			
14.	nstall Windows operating systems as host and client virtual machines.			
15.	Explain the basic concepts involved with computer networking and data communications.			
16.	Examine TCP/IP network architecture and communications.			
	Use networking concepts to describe networking, hardware components and the design of computer networks.			
18.	Configure a Windows workstation operating system and applications software.			
19.	Configure a Windows Server Domain environment.			
	Operate the performance management tools associated with the Windows Server operating system.			

JOBR 120 - Job Readiness

You will develop essential employability skills which will assist you in labour market research in the information technology sector, employment-related communications, and interviewing techniques. You will prepare documentation required for a successful job application and employment.

Credit unit(s):1.0Pre Requisites:noneCo Requisites:noneEquivalent course(s):none

Use a checkmark (✓) to rate yourself as follows for each learning outcome		ا ع		
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. Develop r	equired documents for job application in the technology sector.			
2. Perform o	ompany and job research.			
3. Prepare e	-presence.			
4. Demonst	rate interview skills.			

COOP 150 - Co-operative Education Work Term

Your co-operative education work term will provide an opportunity for you to integrate the formal knowledge and skills learned in the classroom with experiential learning from the workplace. You will have the opportunity to apply theoretical concepts to real work situations, work collaboratively in team work situations, experience the complexity of the roles and responsibilities within an organization, and apply personal employment skills.

Credit unit(s):0.0Pre Requisites:JOBR 120Co Requisites:noneEquivalent course(s):none

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 pers	onal employment search skills.			
2. Demonstra	ate effective workplace communication skills.			
3. Demonstra	ate effective work habits.			
4. Demonstra	ate safe work practices.			
5. Demonstra	ate effective teamwork skills.			
6. Develop pe	ersonal management skills.			
7. Identify ro	les and responsibilities of personnel in the workplace.			
8. Integrate t	heories and concepts learned in a workplace setting.			
9. Demonstra	ate essential employability skills.			
10. Reflect on	job performance.			
11. Prepare a	work term reflection paper.			

COMP 214 - Project Management

You will develop essential project management skills that will place you in a position to make an immediate and valuable contribution to the success of real-world projects. You will study industry standards and methodologies to develop an appreciation of the resources available to project managers. You will learn tools and techniques which are useful to the project process groups and knowledge areas. You will study the theory that supports project management and how apply it to real-world examples.

Credit unit(s):4.0Pre Requisites:noneCo Requisites:noneEquivalent course(s):none

Use a checkma	Use a 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. Discuss pro	oject management concepts			
2. Recognize	the industry standards and methods of project management			
3. Identify th	e people who have a stake in a project			
4. Demonstra	ate effective team management			
5. Prepare to	ols used in project initiation			
6. Apply plan	ning techniques used in project management			
7. Apply sche	duling techniques used in project management			
8. Produce a	risk response plan			
9. Execute a	project management plan			

COMP 235 - Internet Application Development 2

Your studies will provide hands-on experience developing .NET applications. The course content includes Web application topics such as the .NET AJAX framework, ASP.NET, distributed computing topics such as Windows Communication Foundation and Web Services, and the ADO.NET libraries for data access. You will complete course projects using Visual Studio .NET, ASP.NET, ADO.NET, and C#.

Credit unit(s): 6.0

Pre Requisites: COMP 215, COMP 234

Co Requisites: none Equivalent course(s): none

Use a checkma	rk (✓) to rate yourself as follows for each learning outcome	ב ב		
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. Construct	ASP Applications that use server controls.			
2. Maintain s	tate in an ASP web application.			
3. Make ASP.	NET applications that use SQL server data.			
4. Create class	s libraries.			
5. Implement	n-tiered applications.			
6. Manage Al	AX in Web applications.			
7. Use JQuery	in ASP.NET applications.			
8. Implement	: WCF Web Service applications.			
9. Implement	: WCF RIA applications.			
10. Use the M	odel View Controller design pattern.			
11. Create a di	stributed .NET project.			

COMP 236 - Operating Systems and Environment Configuration

You will learn the fundamentals of developing software applications with open source tools and technologies. Your studies will provide you with a broad view of application development and deployment environments, including the hardware, operating systems, and servers required to develop and deploy software applications.

Credit unit(s): 5.0

Pre Requisites: COMP 254
Co Requisites: none
Equivalent course(s): none

Competent: Learning: None:	rk (✓) to rate yourself as follows for each learning outcome 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	9
1. Install Linu	x and Windows in various native and virtual machine configurations.			
2. Compare \	Vindows and Linux operating systems.			
3. Write shel	scripts.			
4. Write regu	lar expressions.			
5. Configure	a Web server.			
6. Configure	a DBMS.			
7. Develop a	database.			
8. Examine se	ecurity in a web database application.			
9. Create a m	ulti-tiered web application.			
10. Deploy a n	nulti-tiered Web application.			

COMP 237 - Systems Analysis and Requirements Management

You will learn a variety of different methods, tools, and techniques that a systems analyst would use in the development of complex business information systems. You will use CASE tools to develop practical experience in planning analysis and design of business information systems. You will gather requirements, perform the analysis and begin design if a small-automated system belonging to a real world/ business/organization to gain direct experience of systems analysis.

Credit unit(s): 4.0

Pre Requisites: COMP 234
Co Requisites: none
Equivalent course(s): none

Use a	se a checkmark (✓) to rate yourself as follows for each learning outcome		ון		
Comp Learn 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. I	dentify fou	indations for systems development.			
2. <i>A</i>	Apply proje	ect time management strategies and common tools.			
3. E	Explain pro	ject scope management.			
4. A	Analyze pro	oject cost management.			
5. E	Examine pr	oject quality management.			
6. 0	Compare a	nalysis tools.			
7. N	Model info	rmation systems.			
8. 1	Model data	storage.			
9. [Discuss pro	gram design.			

COMP 258 - Object Oriented Software Development

You will study the fundamentals of object-oriented software design, UML and data structures. You will study the creation and selection of common collections and their related algorithms. You will apply these concepts in project development involving multi-user, networked application for data access.

Credit unit(s): 5.0

Pre Requisites: COMP 233
Co Requisites: none
Equivalent course(s): none

OSE a CHECKIIIA	rk (√) to rate yourself as follows for each learning outcome	Competent		
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.		Learning	000
1. Review ob	ect orientation.			
2. Write gene	ral purpose data structures.			
3. Write recu	rsive methods.			
4. Apply sear	ching and sorting algorithms.			
5. Conduct al	gorithm efficiency analysis.			
6. Identify co	mmon predefine collections.			
7. Identify ge	neric collections.			
8. Write gene	ric methods.			
9. Manage co	llections of network connections.			
10. Manage co	ncurrent transactions.			

COMP 259 - Mobile Application Development 1

Using the Android-based application development environment, you will extend web applications to a native mobile platform. You will write mobile applications that incorporate local data storage, implement handset hardware features such as GPS and connect to the network. You will compare native application development to cross platform development for multiple devices.

Credit unit(s): 4.0

Pre Requisites: COMP 233
Co Requisites: none
Equivalent course(s): none

Use	e a checkma	rk (√) to rate yourself as follows for each learning outcome	4		
Lea	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.		Competent	Learning	None
1.	Describe m	nobile application platforms.			
2.	Compare t	he advantages and limitations of cross-platform development to native ns.			
3.	Implement	user interface elements for input and output in android applications.			
4.	Control the	e Android Activity lifecycle.			
5.	Write a mo	obile application that interacts with local hardware.			
6.	Implement	local data persistence in a mobile application using text files and databases.			
7.	Write a mo	obile application that connects to the network.			
8.	Publish/de	ploy a native mobile application.			
9.		s platform development tool to develop a simple mobile application that can ltiple device platforms.			

ACCT 225 - Managerial Accounting

Your studies will provide an introduction to the fundamentals of managerial accounting. You will use cost concepts, manufacturing accounting, cost allocation and budgeting processes, and you will be able to employ appropriate managerial accounting techniques for decision making.

Credit unit(s): 5.0
Pre Requisites: ACCT 122
Co Requisites: none
Equivalent course(s): ACCT 225CE

Use	e a checkma	rk (√) to rate yourself as follows for each learning outcome			
Lea	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.		Competent	Learning	None
1.	Define bas	ic management accounting terms and concepts.			
2.	Record cos	t flow information in financial schedules.			
3.	Use a basic	job-order costing system.			
4.	Use cost be	ehaviour analysis to account for costs incurred by a business organization.			
5.	Use Cost-V	olume-Profit Analysis as a decision-making tool.			
6.	Use financ	al performance measurement information to evaluate business divisions.			
7.	Apply cost	flow information to budget process documents.			
8.	Interpret v	ariances using flexible budgeting tools.			
9.	Employ ap environme	propriate managerial accounting techniques for decision making in a business nt.			

ADMN 209 - Organizational Change

You will develop strategies and processes related to creating and fostering an evolving workplace culture that supports innovation, change, quality and learning and results in harmony between the organization's needs and employee's expectations while remaining consistent with the organization's business plan in a competitive and changing environment. The course content emphasizes the importance of implementing change in the proper sequence of events and interactions.

Credit unit(s):4.0Pre Requisites:noneCo Requisites:noneEquivalent course(s):none

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. Discuss	your attitude and reaction towards change management.			
	e how the six-images framework of change management applies to your ch to change.			
Explair organiz	how the depth of an organizational change can impact what changes in an ation.			
4. Constr	uct an effective change vision.			
5. Describ	e the different approaches to managing change.			
6. Describ	e the difference between sustaining a change and initiative decay.			
7. Use va	ried approaches to manage resistance to change.			
8. Demor	strate how to be an effective change manager.			

BCOM 121 - Business Communications 2

You will continue to develop effective business writing skills and employability skills. The course focuses on writing business reports in both informal and formal styles. In addition, classroom study and experience will help prepare you for a business career by developing your presentation skills.

Credit unit(s): 4.0

Pre Requisites: BCOM 120
Co Requisites: none
Equivalent course(s): COMM 149

Use a checkmark (✓) to rate yourself as follows for each learning outcome		ן		
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. Conduct re	esearch for a report.			
2. Create doo	umentation notes and bibliographies.			
3. Organize b	usiness reports.			
4. Use graph	cs to illustrate reports and presentations.			
5. Write prop	osals.			
6. Write user	manuals.			
7. Write syste	ems documentation.			
8. Deliver eff	ective oral presentations using presentation tools.			
9. Evaluate o	ral presentations.			

COMP 253 - Systems Project

You will demonstrate your skill in systems development using real projects or contrived cases that require applying the activities of the system development cycle in an interactive data base environment. The case projects are set in a team environment with the supervising faculty member serving as your consultant and evaluator.

Credit unit(s): 6.0

Pre Requisites: COMP 214, COMP 237

Co Requisites: none Equivalent course(s): none

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
	ive software construction.			
2. Use softw	are modeling techniques.			
3. Manage a	software project.			
4. Maintain a	an existing software application.			
5. Create a n	ew software application.			
6. Manage p	roject documentation.			
7. Use comm process.	nunication skills to present the final project and to discuss the development			
8. Work as a	team to reach established goals.			

COMP 262 - Mobile Application Development 2

Building on the foundation of COMP 259, you will implement more advanced Android and cross platform development techniques. You will write applications that use dynamic user interface elements, incorporate remote data storage, and communicate with web services. Using cross platform development tools, you will create a mobile application that runs on various devices and will work with a multi-tiered business application.

Credit unit(s): 4.0

Pre Requisites:COMP 259Co Requisites:noneEquivalent course(s):none

Use a 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. Write a mol	pile application with advanced user interface elements.			
2. Write a mol	pile application that stores and synchronizes remote data.			
3. Write a mol	pile application that consumes web services.			
4. Write a mol	pile application that implements Android services.			
5. Write a mol	pile application that implements Android content providers.			
6. Develop a c	ross platform mobile application for a multi-tiered business application.			