ORIGINAL COURSE IMPLEMENTATION DATE: January 2018

REVISED COURSE IMPLEMENTATION DATE:

COURSE TO BE REVIEWED: (six years after UEC approval) April 2023

Course outline form version: 09/15/14

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: COMP 092	**Number of Credits:** 3 Course credit policy (105)
Course Full Title: Provincial-Level Computer Studies: Computer Applications **Course Short Title (if title exceeds 30 characters):** Computer Applications	
Faculty: Faculty of Access and Continuing Education	**Department:** Upgrading and University Preparation

Calendar Description:

This provincial-level computing course teaches intermediate and/or advanced computer skills in networking, programming, spreadsheets, database management, and online technologies. Students will use computer skills to develop problem solving and critical thinking skills and apply computer applications to real-life and workplace situations.

Prerequisites (or NONE):	COMP 071 or equivalent. Note: Students should have basic English proficiency in order to be successful in this course.
Corequisites (if applicable, or NONE):	None
Pre/corequisites (if applicable, or NONE):	None

Equivalent Courses (cannot be taken for additional credit)

Former course code/number:

Cross-listed with:

Equivalent course(s):

Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.

Transfer Credit

Transfer credit already exists: ☒ Yes ☐ No

Transfer credit requested (OReg to submit to BCCAT):

☐ Yes ☒ No (if yes, fill in transfer credit form)

Resubmit revised outline for articulation: ☒ Yes ☐ No

To find out how this course transfers, see **bctransferguide.ca**.

Total Hours: 90

Typical structure of instructional hours:

Instructor Guided Demonstration	10
Online tutorials	15
Laboratory hours	
Field experience hours	
Experiential (practicum, internship, etc.)	
Online learning activities and project work	65
Other contact hours:	
Total	**90**

Special Topics

Will the course be offered with different topics?

☐ Yes ☒ No

If yes, different lettered courses may be taken for credit:

☐ No ☐ Yes, repeat(s) ☐ Yes, no limit

Note: The specific topic will be recorded when offered.

Maximum enrolment (for information only): 24

Expected frequency of course offerings (every semester, annually, every other year, etc.): annually-alternate semesters

Department / Program Head or Director: Greg St. Hilaire	**Date approved:**	September 2016
Faculty Council approval	**Date approved:**	September 23, 2016
Campus-Wide Consultation (CWC)	**Date of posting:**	April 13, 2017
Dean/Associate VP: Dr. Sue Brigden	**Date approved:**	September 23, 2016
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	April 21, 2017

Learning Outcomes

Because of the dynamic nature of technology today, students will be taught how to think through the processes involved in using computer applications so that they gain the confidence and knowledge to become life-long technology users. This provincial-level computer course will cover an overview of the following categories with a comprehensive study of a minimum of four categories.

Upon successful completion of this course, students will be able to:

1. Networking

a. state advantages and disadvantages of using networks
b. describe different network configurations (LAN, WAN, etc.)
c. describe and diagram different network topologies (point-to-point, star, bus, etc.)
d. describe the advantages and disadvantages of different network data transmission media (twisted pair, coaxial cable, optical fiber, and wireless)
e. list and describe common network operating systems and network protocols
f. describe various server models, including file servers and client/server systems
g. list Internet/intranet similarities and differences
h. describe management issues, including traffic analysis and security

2. Programming

The Programming option is not to be considered as equivalent to or as a replacement for the Computer Science course articulated at the provincial level. The emphasis of the Computer Science course is software engineering. This option, focusing primarily on the elements of programming, introduces the learner to programming fundamentals. The learner will write programs in a high level language that demonstrate output only and input-process- output operations.

a. test, debug, and modify program code
b. define data types and assign meaningful identifiers to constants and variables
c. use input statements to access the keyboard and use output statements to display text and graphics
d. use conditional expressions to alter program flow
e. use iteration structures to create loops
f. write simple procedures
g. write programs to demonstrate mathematical processing and simple character and graphic manipulations

3. Advanced Spreadsheets

a. enter, format, and edit data
b. use and write advanced formulas
c. create and modify charts and pivot tables
d. create reports
e. manage and analyze data
f. create macros or use a programming language to customize a spreadsheet
g. design a spreadsheet to analyze, interpret, and project outcomes in an applied situation

4. Database Management

a. design and create flat file and relational databases
b. maintain and modify the structure of existing databases
c. correctly formulate queries
d. create and edit forms
e. create and edit reports
f. explain various social and ethical issues involving databases

5. Online Technologies

a. develop an online electronic portfolio which contains projects that demonstrate proficiency with computer software
b. describe the concept of cloud computing and utilize cloud-based applications such as word processing, spreadsheets, online collaboration, photo-editing, online storage
c. utilize electronic means for time and calendar management, task (to do) lists, user ID management, notes, and bookmark (favourite) synchronization
d. create and publish a blog that includes text, pictures, and hyperlinks
e. add and update an entry on a wiki
f. create and publish an online video
g. describe software that can be used to remotely access another computer
h. describe the process to set up a home wireless network, configure encryption, connect computers to the network, and connect to wireless networks in other locations
i. describe the benefits of Bluetooth technology, examples of Bluetooth devices, and Bluetooth setup procedures.
j. compare and contrast various mobile computing technologies

Prior Learning Assessment and Recognition (PLAR)

☒ Yes ☐ No, PLAR cannot be awarded for this course because

Typical Instructional Methods (guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion)

Instructional methods course will include demonstration and online instruction; online resources will be used extensively in this course.

Grading system: Letter Grades: ☒ Credit/No Credit: ☐ Labs to be scheduled independent of lecture hours: Yes ☐ No ☒

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Text(s) and Resource Materials

	Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1.	Townsend, Hain, Wolf	Skills for Success	☒	Pearson	2013
2.	Connor, J.	Programming: Computer Programming for Beginners - Learn the Basics of Java, SQL & C++	☒	ISBN: 1518662587	2015
3.					
4.					
5.					

Required Additional Supplies and Materials (software, hardware, tools, specialized clothing, etc.)

Access to a computer and a Portable Storage Device

Typical Evaluation Methods and Weighting, which differs slightly between instructors

Final exam:	15%	Assignments:	20%	Midterm exam:	%	Practicum:	%
Quizzes/tests:		Projects	30%	Field experience:	%	Shop work:	%
Portfolio:	35%	Other		Other:	%	Total:	100%

Details (if necessary):

Instructors may choose to use portfolio, graded assignments, projects, or a combination of these and quizzes **plus** a final exam so that all methods and weightings combined equal 100%.

Typical Course Content and Topics

1. Networking
- a. network operating systems, protocols, and server models
- b. network data transmission media
- c. configurations, network topologies, internet/intranet, and management issues

2. Programming
- a. program code, data types, identifiers, input and output statements, conditional expressions
- b. iteration structures
- c. simple procedures and programs

3. Advanced Spreadsheets
- a. data, formulas, charts,
- b. customize, design, analyze, interpret spreadsheets

4. Database Management
- a. flat file and relational databases
- b. structure of databases,
- c. formulate queries, create and edit forms and reports
- d. social and ethical issues involving databases

5. Online Technologies
- a. online electronic portfolio
- b. cloud computing
- c. time and calendar management
- d. blogs, wikis, and online video
- e. home wireless network and Bluetooth technology