ORIGINAL COURSE IMPLEMENTATION DATE:	January 2006
REVISED COURSE IMPLEMENTATION DATE:	September 2017
COURSE TO BE REVIEWED: (six years after UEC approval)	March 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 081	**Number of Credits:** 3 Course credit policy (105)
Course Full Title: Advanced Computer Studies **Course Short Title (if title exceeds 30 characters):**	
Faculty: Faculty of Access and Continuing Education	**Department:** Upgrading and University Preparation

Calendar Description:

This course combines a broad range of computer theory and applications to benefit academic and employment opportunities by developing skills for Windows, Word, Excel, Power Point, and Access.

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 Lecture and 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.): for specific contracts or on an as-needed basis.

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:**	n/a
Dean/Associate VP: Dr. Sue Brigden	**Date approved:**	September 23, 2016
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	March 24, 2017

Learning Outcomes

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

1. Hardware

a. identify, name, and describe components of a computer system unit:
   i. motherboard
   ii. Central Processing Unit (CPU)
   iii. memory (RAM)
   iv. peripheral connections (e.g. USB, firewire, HDMI...)

Memory and Secondary Storage

a. identify, name, and describe Secondary Storage Devices, including:
   i. hard disks (fixed and removable)
   ii. portable storage devices (e.g. flash drives and USB hard drives)
   iii. memory cards (e.g. SD, SC)
   iv. online storage (e.g. cloud storage)
   v. optical and magneto-optical storage devices (e.g. CD-ROM, DVD)
b. recognize and use capacity descriptors (KB, MB, GB, TB)
c. distinguish between and describe the function of RAM, ROM and BIOS.

Input and Output

a. identify, name, describe, and distinguish among input and output devices (and associated software):
   i. keyboard, pointing devices, scanners
   ii. video adapters and displays (e.g. LCD, touch screen)
   iii. printers (various types)
   iv. voice
   v. describe how various input and output devices can be used to assist people with disabilities
   vi. digital camera

2. Operating a Computer

a. distinguish between System Software, Utility Software, and Application Software and describe the purpose of an operating system
b. categorize various commonly used operating systems
c. employ operating system(s) to perform basic operations of disk and file management:
   i. assign meaningful file and folder names
   ii. employ wildcard characters in file management
   iii. organize files on storage devices and designate drives, folders, and files
   iv. perform management functions to locate, list, display properties of, copy, rename, move, (un)delete folders and files
   v. describe disc formatting (sectors, tracks, index) and defragment a disc
   vi. recognize a variety of common program and data file types and their associated extension
d. describe the problem of computer viruses and spyware including methods to detect and remove them
e. demonstrate care, maintenance, and protection of computer equipment
f. demonstrate the ability to back up data to a CD or other media
g. identify workspace ergonomics conditions

3. Computers in Society

a. identify the effect of computers on one's everyday life (e.g. databases-subscription lists, ATMs, the Internet, computer record systems, income tax)
b. give examples of how computers are effecting career opportunities
c. trace the history of computer technology and identify current trends
d. state the purchasing considerations from the perspective of an informed consumer (e.g. warranty, service, licensing, needs assessment, market trends)
e. provide examples of ethical issues involving computers in society, such as protection of privacy, social networking sites, identity theft, phishing sites, spam, and copyright

4. Word Processing

a. create a word processing document and save it to a specified location and directory
b. select any amount of text and format the character attributes
c. format the indentation, the alignment, and the spacing of lines and paragraphs
d. identify non-printing characters (space, tab, new line, new paragraph) as displayed on the screen
e. move, copy, and delete text
f. insert a page break and section break into a document
g. insert, format, and manipulate a table
h. use bulleted and numbered lists
i. use footnotes and endnotes
j. apply lines, shading, and colour to a document
k. use the find and the replace functions
l. use the spell checker/thesaurus
m. insert a graphic into a document
n. set page margins

o. use headers and footers (including page numbering, filename, and date codes) with multiple sections
p. preview and print a document
q. recognize different document output devices (printers and faxes)
r. recognize that different file formats originating from different word processors and versions may be incompatible, requiring file conversion routines to be saved in a variety of appropriate formats (e.g. .xls .pdf .htm)

5. Spreadsheets

a. perform basic spreadsheet operations:
b. enter and format data (numbers, text, data series)
c. create simple formulas (using basic operators and functions)
d. copy or move data and/or formulas, utilizing absolute and relative cell addresses and ranges
e. change cell characteristics (column widths, alignments, fonts, etc.)
f. control page layout such as orientation, scaling, grid lines
g. use a spreadsheet to predict outcomes based on specific parameters (e.g. mortgages, investments, financial forecasting and planning)
h. create several kinds of charts based on spreadsheet data
i. save in a variety of appropriate formats (e.g. .xls .pdf .htm)

6. Internet

a. describe the basic structure and functioning of the Internet and define current terminology
b. describe the implementation of online commerce, including ATM cards, online banking, online shopping, and online auctions
c. describe the various options for computer connectivity (e.g. cable modems, XDSL, routers, wireless, 3G, 4G(LTE)
d. send and receive Email (including attachments) using proper etiquette
e. use a web browser to access and navigate through a web site
f. use search engines to locate and bookmark information
g. save text and graphical information from a web site
h. describe how business is conducted on the Internet, including security issues
i. recognize security problems associated with Internet use (e.g. spyware, viruses, spam, firewall)
j. explain how the internet was developed and how it functions

7. Databases

a. describe the structure of a database: tables, records, fields, primary keys, and foreign keys
b. perform simple database procedures:
    i. design a form
    ii. enter, edit, and format data
    iii. examine, manipulate records in different views; delete and insert records; sort records in different ways
    iv. design database tables and fields
    v. design, create, and print a report consisting of selected fields
c. search and query a database for information based on specified parameters

8. Computer Programming

a. create simple programs in a programming language
b. describe the purpose of compilers and/or interpreters
c. create and make use of computer designs or algorithms
d. write basic input, processing, and output instructions

9. Graphics Applications

a. create and manipulate a graphic image (e.g. Paintbrush, Draw)
b. differentiate between various bit-mapped and vector- based graphic file formats (e.g. BMP, JPG and PNG)

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.	Marmel, E.	Office 2013 Simplified	☒	Wiley	2013
3.	Online resources				
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:	20%	Assignments:	20%	Midterm exam:	%	Practicum:	%
Quizzes/tests:	10%	Projects	30%	Field experience:	%	Shop work:	%
Portfolio:	20%	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. Hardware
- a. system unit components; memory and secondary storage capabilities; input and output devices
- b. memory and secondary storage

2. Operating a Computer
- a. System Software, Utility Software, and Application Software
- b. file management: functions and characteristics; back-up data
- c. viruses and spyware
- d. maintenance of computer equipment

3. Computers in Society
- a. history of computers
- b. current trends and consequences of computers
- c. purchasing considerations
- d. ethical issues

4. Word Processing
- a. formatting: breaks, tables, lists, headers, footnotes, lines, shading, graphics
- b. file formats: saving, conversion routines

5. Spreadsheets
- a. basic spreadsheet characteristics and operations
- b. formulate, interpret, and predict outcomes

6. Internet
- a. security issues
- b. terminology: URL, ISP, WWW
- c. online commerce
- d. computer connectivity: cable modems, XDSL, routers, wireless, 3G, 4G(LTE)

7. Databases
- a. structure of database
- b. database procedures: design, edit, manipulate data, search, sort, query, and write reports

8. Computer Programming
- a. computer designs or algorithms
- b. basic input, processing and output instructions

9. Presentation Software