COLLEGE OF THE ROCKIES

Computer Applications - Advanced Level - COMP 080

Access Education/ Upgrading for Academic Career Entry

Course Outline

COURSE IMPLEMENTATION DATE:	**Pre 1998**
OUTLINE EFFECTIVE DATE:	**September 2018**
COURSE OUTLINE REVIEW DATE:	**April 2023**

GENERAL COURSE DESCRIPTION:

Computer Applications – Advanced Level – COMP 080 develops skills and knowledge in computer technology with support for personal, scholastic, community, and employment endeavors. The focus is on word-processing, worksheets, and presentation applications within Microsoft Office 2016 & Office 365. Windows 10 operating system, file management, electronic mail, Internet browsing and the use of graphic images are integrated into course activities. Students may have little prior computer experience and/or wish to upgrade their skills to enter a higher level of computer studies with this course.

Program Information: This course is provincially articulated and can be used for credit towards an ABE Advanced level certificate. This course is a good introduction to information technology. Skills developed will be useful in COMP 153 or any program at College of the Rockies.

Delivery: This course is delivered through directed studies and online.

ABE Credits: 3

Hours for this course: 90 hours

Typical Structure of Instructional Hours for online

Instructional Activity	Duration
Lecture Hours	
Seminars / Tutorials	
Instruction for directed Laboratory	70
Practicum / Field Experience Hours	
Other Contact Hours	20
Total	90

Typical Structure of Instructional Hours for directed study

Instructional Activity	Duration
In class Instruction directed study	
Laboratory	
Other	
Total	N/A

Course Outline Author or Contact:
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Signature

APPROVAL SIGNATURES:

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EDCO

Valid from: September 2018 – April 2023

Education Council Approval Date

COURSE PREREQUISITES AND TRANSFER CREDIT:

Prerequisites: None

Corequisites: None

Flexible Assessment (FA):

Credit can be awarded for this course through FA ☐ Yes ☑ No

Transfer Credit: For transfer information within British Columbia, Alberta and other institutions, please visit http://www.cotr.bc.ca/Transfer.

Students should also contact an academic advisor at the institution where they want transfer credit.

Prior Course Number: N/A

Textbooks and Required Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date the following textbooks were in use:

Parsons, et al. *Illustrated Computer Concepts and Microsoft Office 365 & Office 2016.* Cengage Learning: Nelson Education Ltd. 2017.

A USB flash drive is required

Please see the instructor's syllabus or check COTR's online text calculator http://go.cotr.bc.ca/tuition/tCalc.asp for a complete list of the currently required textbooks.

The goals of computer studies at the advanced level are

- to provide students with a survey of the major applications of computers;
- to develop an understanding of computers and concepts to aid students' employment opportunities, personal productivity and enjoyment; and
- to enable the student to acquire skills to contribute to and participate productively in society.

LEARNING OUTCOMES:

1. Hardware

It is expected that learners will be able to:

- identify, name and describe basic components of a computer system unit:
  - motherboard
  - central processing unit (CPU)
  - memory (RAM)
  - peripheral connections (USB, fire-wire, HDMI)

Memory and Secondary Storage

It is expected that students will be able to:

- identify, name and describe Secondary Storage Devices, including:
  - hard drives (fixed and removable)
  - USB devices (flash drives and USB hard drives)
  - solid state drives
  - memory cards (SD, SC)
  - online storage (cloud storage)
  - optical and magneto-optical storage devices (CD-ROM, DVD)
  - recognize and use capacity descriptors (KB, MB, GB, TB)
  - distinguish between and describe the function of RAM, ROM, and BIOS/UEFI

Input and Output

It is expected that students will be able to:

- identify, name and describe and distinguish among input and output devices (and associated software):
  - keyboard, pointing devices, scanners
  - video adapters and displays (LCD, touch screen)

- printers (various types)
- voice
- digital camera
- describe how various input and output devices can be used to assist people with disabilities

2. Operating a Computer

It is expected that students will be able to:

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

3. Computers in Society

It is expected that students will be able to:

- identify the effect of computers on their everyday lives (databases-subscription lists, ATMs, the Internet, computer record system, income tax)
- give examples of how computers are affecting career opportunities
- trace the history of computer technology and identify current trends
- state the purchasing considerations from the perspective of an informed consumer (warranty, service, licensing, needs assessment, market trends)
- provide examples of issues involving computers in society (protection of privacy, social networking sites, identify theft, phishing sites, span and copyright)

4. Word Processing

It is expected that students will be able to:

- create a word processing document and save it to a specified location and directory
- select any amount of text and format the character attributes
- format the indentation, alignment and spacing of lines and paragraphs
- identify non-printing characters (space, tab, new line, new paragraph) as displayed on the screen
- move, copy and delete text
- insert a page break and section break into a document
- insert, format and manipulate a table
- use bulleted and numbered lists
- use footnotes/endnotes
- apply lines, shading and colour to a document
- use the find and the replace functions

- use the spell checker/thesaurus
- insert a graphic into a document
- set page margins
- use headers and footers (including page numbering, filename, and date codes) with multiple sections
- preview and print a document
- set page margins
- use headers and footers (including page numbering, filename, and date codes) with multiple sections
- preview and print a document
- recognize different document output devices
- recognize that different file formats originating from different word processors and versions may be incompatible, requiring file conversion routines
- save in a variety of appropriate formats

5. **Spreadsheets**

   It is expected that students will be able to:

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

6. Internet

It is expected that students will be able to:

- describe the basic structure and functioning of the internet and define current terminology (URL, ISP and WWW, http, https)
- describe the implantation of online commerce, including: atm cards, online banking, online shopping and online auctions
- describe the various options for computer connectivity (cable modems, XDSL, routers, wireless, 3G, 4G, LTE)
- send and receive e-mail (including attachments) using proper etiquette
- use a web browser to access and navigate through a web site
- use search engines to locate and bookmark information
- save text and graphical information from a web site
- describe how business is conducted on the Internet, including security issues
- recognize security problems associated with Internet use (spyware, viruses, spa, firewall)
- understand how the internet was developed and how it functions

Options are available upon instructor's discretion.

COURSE TOPICS:

- Basic Concepts
    - Getting Started with Windows 10 & Understanding File Management
    - Internet - Getting Started with Internet Explorer 11 and E-mail
- Microsoft Office 2016 and Word 2016
    - Getting Started with Microsoft Office
    - Working with Word to Create Documents
    - Working with Excel to Create Worksheets
    - Working with PowerPoint to Create Presentations
- Integrating Word and Excel
- Integrating Word, Excel and PowerPoint

See instructor's syllabus for the detailed outline of weekly readings, activities and assignments.

EVALUATION AND ASSESSMENT:

Assignments	% Of Total Grade
Basic Concepts, Windows, Internet and Email	20%
Office and Word Exercises	25%
Excel Workbooks	20%
PowerPoint Presentations	20%
Integration Exercises and Final Project	15%
Total	100%

Please see the instructor syllabus for specific classroom policies related to this course, such as details of evaluation, penalties for late assignments, and use of electronic aids.

EXAM POLICY:

Students must attend all required scheduled exams that make up a final grade at the appointed time and place.

Individual instructors may accommodate for illness or personal crisis. Additional accommodation will not be made unless a written request is sent to and approved by the appropriate Department Head prior to the scheduled exam.

Any student who misses a scheduled exam without approval will be given a grade of "0" for the exam.

COURSE GRADE:

Course grades are assigned as follows:

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Mark (Percent)	≥ 95	94-90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	< 50

A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

ACADEMIC POLICIES:

See www.cotr.bc.ca/policies for general college policies related to course activities, including grade appeals, cheating and plagiarism.

COURSE CHANGES:

Information contained in course outlines is correct at the time of publication. Content of the courses is revised on an ongoing basis to ensure relevance to changing educational, employment and marketing needs. The instructor will endeavour to provide notice of changes to students as soon as possible. The instructor reserves the right to add or delete material from courses.