Computer Appl. for Business I (BCO108)

Northern College

Course Number:		
IN1163		
Applicable Program(s):	**AAL:**	**Core/Elective:**
Multiple Programs	Multiple Levels	Multiple Core/Elective
Approved by:	Dean Lessard, Dean, Business & Community Services	
Approval Date:	Wednesday, August 29, 2018	
Approved for Academic Year:	2018-2019	
Normative Hours:	45.00	

Course Description

In this course, students will have exposure to a comprehensive windows-based financial spreadsheet package to enhance their problem solving abilities. The package used will be Microsoft Excel for Windows. The student will use this as a tool to prepare various reports and presentations and applications which can be transferred in work commonly performed in the modern office. Students will gain hands on experience in learning and understanding the software, as well as creating and developing spreadsheet applications. Students will develop and enhance spreadsheets, charts, data lists, tables, macros and perform what-if analysis.

Course Learning Requirements

When you have earned credit for this course, you will have demonstrated the ability to:

1.) Perform fundamental tasks involving the operation of a spreadsheet package, recognizing that many of the same functions are found as in other spreadsheet productions.2.) Formatting an Excel Worksheet.3.) Working with Formulas and Functions.4.) Create and enhance the representation of financial information with an Excel chart.5.) Organize data to provide better financial information to interested users within the organization.6.) Managing Multiple Worksheets and Workbooks.7.) Developing an Excel Application.8.) Using Advanced Functions and Conditional Formatting.9.) Working with Financial Tools and Functions.10.) Performing What-If Analysis.

Relationship to Essential Employability Skills

This course contributes to your program by helping you achieve the following Essential Employability Skills:

EES 1	Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience. (T, A,)
EES 2	Respond to written, spoken or visual messages in a manner that ensures effective communication. (T, A,)
EES 3	Execute mathematical operations accurately. (T, A,)
EES 4	Apply a systematic approach to solve problems. (T, A,)
EES 5	Use a variety of thinking skills to anticipate and solve problems. (T, A,)

EES 6	Locate, select, organize and document information using appropriate technology and information systems. (T, A,)
EES 7	Analyze, evaluate and apply relevant information from a variety of sources. (T, A,)
EES 10	Manage the use of time and other resources to complete projects. (T, A,)
EES 11	Take responsibility for one's own actions, decisions and consequences. (T, A,)

Relationship to Vocational Learning Outcomes

This course contributes to your program by helping you achieve the following Vocational Learning Outcomes:

Business Fundamentals

VLO 3	use current technologies to support an organization's business initiatives (T, A,)
VLO 4	apply basic research skills to support business decision making (T, A,)
VLO 5	perform basic accounting procedures and financial calculations to support the operations of an organization (T, A,)

Business Fundamentals

VLO 3	use current technologies to support an organization's business initiatives (T, A,)
VLO 4	apply basic research skills to support business decision making (T, A,)
VLO 5	perform basic accounting procedures and financial calculations to support the operations of an organization (T, A,)

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Business Fundamentals

VLO 3	use current technologies to support an organization's business initiatives (T, A,)
VLO 4	apply basic research skills to support business decision making (T, A,)

VLO 5   perform basic accounting procedures and financial calculations to support the operations of an organization (T, A,)

Learning Resources

New Perspectives Microsoft Excel Comprehensive

Cengage Learning by Parsons, Oja, Ageloff

Memory Stick (flash drive) 4GB or greater

Evaluation/Earning Credit

The following list of Evaluations/Earning Credits (EC) provides evidence of this course's learning achievements and the outcomes they validate:

EC 1 Assignments 40%

Validates Outcomes: EES 1, EES 2, EES 3, EES 4, EES 5, EES 6, EES 7, EES 10, EES 11

    B287 : VLO 3, VLO 4, VLO 5

    B287W : VLO 3, VLO 4, VLO 5

    B288 : VLO 3, VLO 4, VLO 5

    B289 : VLO 3, VLO 4, VLO 5

    B292 : VLO 3, VLO 4, VLO 5

    B292W : VLO 3, VLO 4, VLO 5

    B294 : VLO 3, VLO 4, VLO 5

EC 2 Tests, Quizzes and Examinations 60%

Validates Outcomes: EES 1, EES 2, EES 3, EES 4, EES 5, EES 6, EES 7, EES 10, EES 11

    B287 : VLO 3, VLO 4, VLO 5

    B287W : VLO 3, VLO 4, VLO 5

    B288 : VLO 3, VLO 4, VLO 5

    B289 : VLO 3, VLO 4, VLO 5

    B292 : VLO 3, VLO 4, VLO 5

    B292W : VLO 3, VLO 4, VLO 5

    B294 : VLO 3, VLO 4, VLO 5

Grade Scheme

COLLEGE GRADING NUMERICAL EQUIVALENT TABLE

Final Grade	Mark Equivalent	Final Grade	Mark Equivalent

A	80% - 100%	B	70% - 79.9%
C	60% - 69.9%	D	50% - 59.9%
F	Less than 50%		

Northern College Statements

Department Related Information

Students who, for extenuating circumstances, (e.g. hospitalization, death in the family) are unable to meet assignment deadlines, must submit to the course professor, prior to the day of the deadline, a written request for an extension. Students who, for extenuating circumstances are unable to attend a scheduled test, must contact the course professor, the day of the test and request permission to write the test the day he/she returns to school.

Requests will be evaluated considering individual circumstances and approval is not guaranteed in all cases.

Scheduled tests and/or assignments will be returned to students within 10 working days. Students who are absent when these are returned will be responsible for seeing the professor to pick up the test/assignment. Any document not picked up by the student, from the professor, by the last day of classes, will be discarded. No student may pick up another student's work.

College Related Information

Course Outlines

Students are advised to retain course outlines in support of applications for employment or transfer credit. It is also recommended that students not write on the course outline; as a formal document, it may not be considered valid by another institution if it has been altered.

A charge of $12.00 shall be applied to students requesting a course outline for a course in which they are not currently enrolled.

Prior Learning Assessment and Recognition (PLAR)

This course may be eligible for PLAR. Refer to the Student Handbook, Academic Calendar and Departmental Policies. (e.g. The Bachelor of Science Nursing program does not recognize PLAR credits.)

Course Content

Described below is the Course Content described in high level for this Course. This includes Modules which contain

Units involved in this Course.

Module 1: Introduction to Excel

Perform fundamental tasks involving the operation of a spreadsheet package, recognizing that many of the same functions are found as in other spreadsheet productions.

Unit 1: Introduction to Spreadsheets

Learning Resources:

Text

Knowledge and Skills Taught:

        Explain the use of spreadsheets and Excel

        Identify the parts of the Excel window

        Scroll through a worksheet and navigate between worksheets

        Create and save a workbook file

        Enter text, numbers, and dates into a worksheet

        Resize, insert, and remove columns and rows

        Select and move cell ranges

        Insert formulas and functions

        Insert, delete, move, and rename worksheets

        Create patterned text with Flash Fill

        Work with editing tools

        Preview and print a workbook

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Unit 2: Formatting an Excel Worksheet

Learning Resources:

Text

Knowledge and Skills Taught:

        Format text, numbers, and dates

        Change font colors and fill colors

Add fill colours and background images

Create formulas to add, subtract, and divide values

Add number formats

Align, indent, and rotate cell contents

Merge a range into a single cell

Copy and paste functions

Apply a built-in cell style

Change the theme of a workbook

Create formulas to add and subtract values

Apply a built-in table style and select table style options

Highlight cells with conditional formats

Copy and paste formats with the Format Painter

Hide worksheet rows

Define the print area, insert page breaks, and add print titles

Enter headers and footers

Select page margins

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5
B287W - VLO 3, 4, 5
B288 - VLO 3, 4, 5
B289 - VLO 3, 4, 5
B292 - VLO 3, 4, 5
B292W - VLO 3, 4, 5
B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Unit 3: Working with Formulas and Functions

Learning Resources:

Text

Knowledge and Skills Taught:

Copy formulas

Build formulas containing relative, absolute and mixed references

Review function syntax

Enter formulas and functions with the Quick Analysis Tool

Insert a function with the Insert Function dialogue box

Interpret error values

Search for a function

Type a function directly in a cell

Use Autofill to fill in a formula and complete a series

Use the TODAY,WORKDAY,COUNT,COUNTA functions

Enter the IF logical function

Perform an exact match lookup with the VLOOKUP function

Perform what-if analysis using trial and error and then Goal Seek

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Module 2: Working with Excel

Create and enhance the representation of financial information with an Excel chart.

Unit 1: Creating and Enhancing a Spreadsheet

Learning Resources:

Text

Knowledge and Skills Taught:

Use the PMT financial function to calculate monthly mortgage payments

Create an embedded chart

Create and format a pie chart

Work with chart titles and legends

Create and format a column chart

Create and format a line chart

Modify a chart data source

Create and format a combined chart

Create a 3D chart

Create and format sparklines and data bars

Create a chart sheet

Insert a watermark

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Unit 2: Organizing Data in Excel

Learning Resources:

Text

Knowledge and Skills Taught:

      Explore a structured range of data

      Freeze rows and columns

      Plan and create an Excel table

      Rename and format an Excel table

      Add, edit, and delete records in an Excel table

      Sort data

      Filter data

      Insert a Total row to summarize an Excel table

      Split a worksheet into two panes

      Insert subtotals into a range of data

      Use the Outlines buttons to show and hide details

      Create and modify a Pivot Table

      Apply Pivot Table styles and formatting

      Filter and sort a Pivot Table

      Insert a slicer to filter a Pivot Table

      Group Pivot Table items

      Create a Pivot Chart

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Module 3: Managing Worksheets, Applications and Advanced Functions of Excel

Managing Multiple Worksheets and Workbooks, Developing an Excel Application, and Working with Advanced Functions and Analysis using Excel.

Unit 1: Managing Multiple Worksheets and Workbooks

Learning Resources:

Text

Knowledge and Skills Taught:

      Create a worksheet group

      Format and edit multiple worksheets at once

      Create cell references to other worksheets

      Consolidate information from multiple worksheets using 3D references

      Create and print a worksheet group

      Create a link to data in another workbook

      Create a workbook reference

      Learn how to edit links

      Create and use an excel workspace

      Insert a hyperlink in a cell

      Create a sample template

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Unit 2: Developing an Excel Application

Learning Resources:

Text

Knowledge and Skills Taught:

      Create an application

      Create, edit, and delete defined names for cells and ranges

Paste a list of defined names for documentation

Use defined names in formulas

Add defined names in existing formulas

Create validation rules for data entry

Protect the contents of worksheets and workbooks

Add, edit, and delete comments

Learn about macro viruses and Excel security features

Add the Developer tab to the Ribbon

Create and run a macro

Assign a macro to a keyboard shortcut and a button

Save and open a workbook in macro-enabled format

Minimize the Ribbon

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Unit 3: Using Advanced Functions and Conditional Formatting

Learning Resources:

Text

Knowledge and Skills Taught:

Use the IF function for single and nested conditions

Use the AND function

Use the OR function

Use structured references in formulas

Use the VLOOKUP function

Review the HLOOKUP function

Check for duplicate values using conditional formatting

Use the IFERROR function

Use the conditional formatting to highlight duplicate values

Summarize data using the COUNTIF, SUMIF, and AVERAGEIF functions

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Unit 4: Working with Financial Tools and Functions

Learning Resources:

Text

Knowledge and Skills Taught:

Use the PV,FV,PMT and NPER functions

Work with financial functions to analyze loans and investments

Create an amortization schedule

Calculate a conditional sum

Interpolate and extrapolate a series of values

Calculate a depreciation schedule

Determine a payback period

Calculate a net present value

Calculate an internal rate of return

Trace a formula error to its source

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Unit 5: Performing What-If Analysis

Learning Resources:

Text

Knowledge and Skills Taught:

Explore the principles of cost-volume-profit relationships

Perform a basic what-if analysis

Use goal seek to calculate a solution

Create a one-variable data table

Create a two-variable data table

Vocational Learning Outcomes addressed by the Unit:

B287 - VLO 3, 4, 5

B287W - VLO 3, 4, 5

B288 - VLO 3, 4, 5

B289 - VLO 3, 4, 5

B292 - VLO 3, 4, 5

B292W - VLO 3, 4, 5

B294 - VLO 3, 4, 5

Essential Employability Skills addressed by the Unit:

EES 1, 2, 3, 4, 5, 6, 7, 10, 11

Evaluations addressed by the Unit:

EC 1, 2

Legend

Terms

•ALO: Aboriginal Learning Outcome

•Apprenticeship LO: Apprenticeship Learning Outcome

•CLR: Course Learning Requirement

•DPLO: Degree Program Learning Outcome

•EC: Earning Credit

•EES: Essential Employability Skill

•EOP: Element of Performance

•GELO: General Education Learning Outcome

•LO: Learning Outcome

•PC: Program Competency

•PLA: Prior Learning Assessment

•PLAR: Prior Learning Assessment and Recognition

•VLO: Vocational Learning Outcome

Assessment Levels

•T: Taught

•A: Assessed