

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**COURSE OUTLINE**

**COURSE TITLE:** Spreadsheet Management

**CODE NO. :** BCO107 **SEMESTER:** Winter

**PROGRAM:** Business Fundamentals (A), Business General (B), Business Administration (C), Business Accounting (D), Business Administration-Accounting (E), Business Marketing (F), Business Administration-Human Resources Management (G)

**AUTHOR:** Grant Dunlop

**DATE:** Oct 24, 2016 **PREVIOUS OUTLINE DATED:** Winter 16

**APPROVED:** Sherri Smith Oct 24, 2016

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**CHAIR**

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**DATE**

**TOTAL CREDITS:** 3

**PREREQUISITE(S):** None

**HOURS/WEEK:** 45

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**I. 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 2013 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.*

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will be able to familiarize themselves with the use of spreadsheets in the business world. Students will gain hands-on experience working with and creating worksheets, charts, lists and macros using Microsoft Excel 2013 to develop proficiency with spreadsheet functions and applications:

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.

Potential Elements of the Performance:

- 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

2. Formatting an Excel Worksheet

Potential Elements of the Performance:

- 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

## 3. Working with Formulas and Functions

Potential Elements of the Performance:

- 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

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

Potential Elements of the Performance:

- 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
5. Organize data to provide better financial information to interested users within the organization.

Potential Elements of the Performance:

- 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
6. Managing Multiple Worksheets and Workbooks

Potential Elements of the Performance:

- 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

## 7. Developing an Excel Application

Potential Elements of the Performance:

- 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

## 8. Using Advanced Functions and Conditional Formatting

Potential Elements of the Performance:

- 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

#### 9. Working with Financial Tools and Functions

##### Potential Elements of the Performance:

- 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

#### 10. Performing What-Ifs Analysis

##### Potential Elements of the Performance:

- 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

### **III. TOPICS:**

1. Getting Started with Excel
2. Formatting a Worksheet
3. Working with Formulas and Functions
4. Enhancing a Workbook with Charts and Graphics Charts
5. Working with Excel Tables, Pivot Tables and Pivot Charts
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 Analyses

&lt;insert course name here&gt;

&lt;insert course code number here&gt;

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

New Perspectives Microsoft Excel 2013 Comprehensive, Cengage Learning by  
Parsons,Oja,Ageloff,Carey,Desjardins  
ISBN 9781285169330  
Alternate book ISBN 9781305501126  
Memory Stick (flash drive) 4gb or greater

**V. EVALUATION PROCESS/GRADING SYSTEM:**

*<give breakdown of tests/assignments and their weights relative to calculating the final grade for the course>*

1. Assignments – 40%
2. Tests, Quizzes and Examinations – 60%  
Comprised of a combination of term testing, quizzes and/or final examination as determined by the professor/instructor.

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 – 100%	4.00
A	80 – 89%	
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

**VI. SPECIAL NOTES:**

&lt;insert course name here&gt;

&lt;insert course code number here&gt;

**Attendance:**

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. *<Optional: It is the departmental policy that once the classroom door has been enclosed, the learning process has begun. Late arrivers will not be granted admission to the room.>*

*<include any other special notes appropriate to your course>*

**VI. COURSE OUTLINE ADDENDUM:**

The provisions contained in the addendum located on the portal form part of this course outline.