QUEENSBOROUGH COMMUNITY COLLEGE

Department of Engineering Technology

ET 821

Lab 5 Introduction to Spreadsheets

A spreadsheet is a computer application program that allows you to organize data, complete calculations, make decisions, graph data, and develop professional looking reports. This exercise will introduce you to the Microsoft Excel spreadsheet program.

The Excel spreadsheet is similar to other Office applications environments. The screen contains a grid of boxes. Each box is called a cell. The columns are labeled A, B, C, etc. The rows are labeled 1, 2, 3, etc. The cells are labeled by a column letter followed by a row number. For example, the very first cell in the top left corner is called A1.

1. Start Excel by clicking on the **Start** button, pointing to **All Programs**, **Microsoft Office,** and then clicking on **Microsoft** **Excel 2013**.

2. Select cell A1 by pointing to cell A1 and clicking the left mouse button.

3. Type the text *Smith's College Expenses*. Use ***your*** ***last name*** instead of Smith. Click on the green **check mark** **button** (enter button).

4. Select cell B2 by pointing to cell B2 and clicking the left mouse button. Type in the column title *Fall*. Press the **right arrow cursor control key** and type in the rest of the column headings (*Spring, Summer, Total*) as shown on the sample worksheet at the end of this exercise.

5. Starting at cell A3, enter the row titles (*Tuition, Books, Lab Fees, Total*) using the **down arrow cursor control key**.

6. Starting at cell B3, enter the data into the appropriate cells (Note: Enter *only* the data. **Do Not** enter the Totals.)

7. Select all od the data cells (including the cells for the Totals) and click on the pull down menu in the **Number Group** and select **Currency**.

8. Select cell B6 (*Fall Total*) by pointing to cell B6 and clicking the left mouse button.

9. Click on the **Autosum tool button (**Σ**)**. Note the formula displayed on the formula bar. Next click on the green **check mark button** (enter button).

10. Step 9 could be repeated to complete the other column totals However, a copy feature can be a lot faster. Select cell B6. Point to the **fill handle**, a small mark in the lower right corner of the cell. When the fill handle is selected *properly*, the mouse pointer changes from the *block plus sign* to a *small dark plus sign* (+). Drag the fill handle to select the area C6:D6. Excel will shade the border of the paste area C6:D6. Release the left mouse button and the correct sum will be copied.

11. Select cell E3, (*Total Tuition*). Repeat step 9 to compute the Total Tuition.

12. Select cell E3 and repeat step 10 for the column range E4:E6 to complete the other Totals..

13. Center the chart heading Smith's College Expenses (note you used your name) by selecting cell A1. Drag the *block plus sign* to cell E1. The range of cells A1:E1 should be highlighted.

14. Click on the **merge and** **center tool button** in the **Alignment Group**. It is located to the right of the right justify button and contains a small lower case letter "**a**."

15. Increase the point size of the heading text by selecting cell A1 and clicking on the **font size arrow.** The default is 10 points. Change the point size of cell A1 to 14 points.

16. Select cell A1 and click on the **Bold button**. It is located to the left of the italics button on the tool bar.

17. Format the worksheet by first selecting cell A2. Next select the range of cells A2 to E6 by dragging the block plus sign over the entire range. The range of cells A2 to E6 should be highlighted.

18. Right Click on the selected cell range and select **Format Cells**. Click on the **Borders Tab**. Click on the **Inside Button**. Click on the **OK button**.

19. Select the A2 to E6 cell range again. Right click on the selected cell range and select Format Cells again. If necessary, click on the **Borders Tab**. Select a **thick solid line** and click on the **top** and **bottom** border. Click OK and deselect the cell range so that you can view the results.

20. Save your worksheet as LAB5P1.XLS.

21. Select cell **A10**

22. Chart the data by selecting the range of cells A2 through D5.

23. Click on the **Insert Tab** and select **Column Chart**, **2-D Clustered Column** (first chart type)..

1. Move and size the chart so that it covers the cell range A9 to G22.
2. Create the Fall Pie Chart by selecting the range of cells B2 through B5. On the **Insert Tab** select **Pie Chart** and select **2-D Pie**, **Exploded Pie** (second choice) Size and position the Fall Chart to cover the cell range **A25-D34**.
3. Create the Spring Pie Chart by selecting the range of cells C2 through C5. On the **Insert Tab** select **Pie Chart** and select **2-D Pie**, **Exploded Pie** (second choice)
4. Size and position the Spring Chart to approximately cover the cell range **E25-I34**.
5. Create the Summer Pie Chart by selecting the range of cells D2 through D5. On the **Insert Tab** select **Pie Chart** and select **2-D Pie**, **Exploded Pie** (second choice)
6. Size and position the Summer Chart to cover the cell range **A36-D4**.

30. Save your work as LAB5P1A.XLS.

31. Turn off the worksheet gridlines by selecting **Tools**, **Options**, and unchecking the **gridlines** box on the **View Tab**. Print your worksheet and charts.

1. Exit Excel.

Part 2

33. Make a spreadsheet to track the grades of four students for four exams. Compute the average by selecting the **Average Formula**. Hint: Remember to select the cell where the results go first. Next choose **Average** from the **AutoSum** Pull Down menu.

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| **Smith's College Expenses** | | | | |  |  |  |  |
|  | Fall | Spring | Summer | Total |  |  |  |  |
| Tuition | $1,800.00 | $1,800.00 | $750.00 | $4,350.00 |  |  |  |  |
| Books | $350.00 | $250.00 | $150.00 | $750.00 |  |  |  |  |
| Lab Fees | $100.00 | $100.00 | $50.00 | $250.00 |  |  |  |  |
| Total | $2,250.00 | $2,150.00 | $950.00 | $5,350.00 |  |  |  |  |
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