

# BAKER COLLEGE STUDENT LEARNING OUTCOMES

## CIS 2410 Intermediate Spreadsheets 3 Semester Hours

## **Student Learning Outcomes & Enabling Objectives**

- 1. Reinforce concepts learned in prerequisite spreadsheet classes.
  - a. use workbook files and individual worksheets
  - b. format labels, values, simple formulas, and simple functions
  - c. distinguish between the need for relative and absolute cell addressing
  - d. use shortcut formatting techniques such as dragging, copying, pasting, inserting, and freezing
  - e. use simple if-then analysis f. use formula and function dialog boxes
  - f. format simple column and pie charts
- 2. Apply functions and data tables to solve problems common to business.
  - a. work with the pmt and pv functions to create loan and account information
  - b. create data tables
  - c. use vlookup to access table data
  - d. create data series
  - e. name ranges in formulas and functions
  - f. customize ranges, formulas, conditions, menus, toolbars, and notations
  - g. link objects, embedding, updating tools to integrate spreadsheets and word processing files
  - h. secure data formulas and workbook files
- 3. Create a worksheet database and use available database tools.
  - a. understand guidelines for creating a spreadsheet database
  - b. create fields and records
  - c. use data forms to view and search for records
  - d. sort and filter a database
  - e. work with subtotals
  - f. use criteria ranges
  - g. extract records
- 4. Relate data across multiple worksheet and files.
  - a. use templates to create multiple worksheets
  - b. format templates with format codes and styles
  - c. link cells in other worksheets and workbooks

- d. create a workspace file from multiple workbooks
- e. replace data across multiple worksheets
- f. merge workbooks
- g. working with a team to create, format, and verbally demonstrate a multiple page workbook project
- 5. Use Visual Basic for applications to write a simple procedure
  - a. create a command button
  - b. assign properties to a command button
  - c. use the vba editor to write a procedure
  - d. run the procedure
  - e. execute macros
  - f. use the vba editor to view and edit macro code
  - g. create a menu item buttons to a macro
  - h. record a macro
- 6. Use worksheet tools to analyze data and solve problems.
  - a. use the auditing toolbar to trace precedent and dependent formulas
  - b. use data validation
  - c. use trial and error, goal seeking, and solver tools to find optimal solutions to complex problems
  - d. use scenario management tools for what-if analysis
  - e. use pivot tables to rearrange data for different viewpoints
  - f. use pivot charts to analyze data
- 7. Import different forms of data into a spreadsheet.
  - a. import comma delineated text files
  - b. import database tables and queries
  - c. import html and xml data d. track changes made to shared spreadsheets

### **Big Ideas and Essential Questions**

#### **Big Ideas**

- Formulas
- Pivot Charts
- Datasets and Tables
- What-If analysis
- Specialized and Statistical functions
- Worksheets and Workbook management
- Imports and web queries
- Macros

#### **Essential Questions**

- 1. What is a spreadsheet?
- 2. How is quantitative analysis done?
- 3. How do you use relative, absolute and mixed cell references in formulas?
- 4. Determine the results with the IF function?
- 5. How do you create and maintain range names?
- 6. Demonstrate the different variations of calculating with the PMT function?
- 7. How would you manage worksheets and workbooks?
- 8. Illustrate how to depict data visually with charts?
- 9. Explain how to create and customize sparklines?
- 10. Analyze and print large datasets?
- 11. How would you apply conditional formatting?
- 12. Explain how to design and create tables?
- 13. Explain how to freeze rows and columns?
- 14. Describe how to summarize and analyze data?
- 15. How do you optimize results within the solver?

These SLOs are approved for experiential credit.

Effective: Fall 2017