



South Central College

COMP 1125 Spreadsheet/Database Integration

Course Outcome Summary

Course Information

Description	The focus of this course will be on the core competencies of Excel and Access and their integration with Word, PowerPoint, and each other. Topics to be covered in Excel include: formatting, creating formulas, creating charts and pivot tables, linking files, using templates and hyperlinks, and the use of functions, including logical and lookup functions. Topics covered in Access include: understanding the concepts, design, and construction of a relational database. The student will create table structures, queries, forms, and reports. Students will integrate these applications together to create a final capstone project for the course. Basic Windows navigation skills will be beneficial. (Prerequisites: None)
Total Credits	4
Total Hours	64

Types of Instruction

Instruction Type	Credits/Hours
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Lecture	
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Pre/Corequisites

None

Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Examine the Excel Worksheet

Learning Objectives

- Identify major components of the Excel window
- Navigate within and between worksheets
- Enter data in an Excel worksheet

Manipulate columns and rows
Create and display simple formulas
Use Spell Checker
Preview and print a workbook
Use the HELP features of Excel

2. Format & Print worksheets to increase readability.

Learning Objectives

Format the worksheet to aid readability of the data
Apply and modify various formatting styles
Change alignment of cell contents
Apply borders, background colors, and patterns to cells & worksheets
Apply conditional formatting to a range of cells
Use Print Setup options to prepare worksheet for printing
Add headers & footers to printouts

3. Analyze formulas and functions.

Learning Objectives

Examine the syntax of formulas and functions
Copy & paste formulas and functions
Work with relative and absolute cell addresses
Use the Insert Function dialog box
Use the Autofill to copy formulas and series
Work with financial and logical functions

4. Chart data to present information in a graphical manner.

Learning Objectives

Create Column, Line, & Pie charts
Work with 3D charts
Modify chart objects
Embed charts in a worksheet
Create Sparkline charts
Edit the data source for the chart
Create chart sheets

5. Set up a data list (table).

Learning Objectives

Create an Excel data list (table) with appropriate headers
Sort data in the list
Filter data in the list using AutoFilters
Insert subtotals and totals into a list

6. Create pivot tables to summarize data.

Learning Objectives

Summarize a list using a pivot table
Modify the pivot table layout

7. Work with multiple worksheets, workbooks, and the Web.

Learning Objectives

Consolidate the data from multiple worksheets.
Create a workbook based on a template.
Create 3D cell references
Create and edit Links to workbooks.
Create hyperlinks in a workbook.
Create custom templates
Create a Web page

8. Work with Advanced Functions and Filtering.

Learning Objectives

Use IF functions
Use Lookup functions
Use Database functions
Create Criteria ranges for advanced filtering.

9. Examine basic Word features.

Learning Objectives

Create a Word document
Format the document
Save and Print the document

10. Merge Excel and Word files.

Learning Objectives

Link an Excel worksheet to a Word document.
Insert graphics or charts as an embedded object.
Update a linked object.
Modify an embedded object.

11. Examine basic PowerPoint features.

Learning Objectives

Create a slide show
Add, move, and delete slides
Save PowerPoint file as a .pptx
Apply backgrounds and transitions to a slide show
Print slideshow
Print as outlines, handouts, and speaker notes.
Incorporate Excel charts or graphs into a slide show
Insert clipart where appropriate

12. Examine Access components and database concepts

Learning Objectives

Define key database terms
Identify Access database objects.
Copy records from one Access database to another.

13. Design a relational database

Learning Objectives

Explore the guidelines for designing a database
Identify information and data to be tracked
Organize related fields to create tables
Identify the common fields between groupings

14. Create and modify relational database tables

Learning Objectives

Explore field naming strategies
Determine which field could be the primary key for the table
Modify the structure of a database table
Change the properties of a field in the table
Add/modify data records in a table
Import records into the database from another source
Define relationships between the tables
Define referential integrity rules

15. Query the database to extract information

Learning Objectives

Explore the query window (QBE Grid)
Sort records using queries
Use criteria to select records
Use And and Or logical operators

Create calculated fields in a query
Use Aggregate Functions in a calculated field

16. Create basic form objects

Learning Objectives

Use the form wizard to create a form
Preview/print a form
Modify data using a form
Create a Mainform and a Subform

17. Create basic report objects

Learning Objectives

Use the report wizard to create a report
Insert graphics in a report
Use conditional formatting in a report

18. Enhance a table design

Learning Objectives

Create a lookup field in a table
Use the IIF function to assign a conditional value
Set up an input mask property for a field in a table
Identify object dependencies
Define data validation rules

19. Create advanced queries

Learning Objectives

Use more complex criteria for select queries
Create a parameter query
Create a cross-tab query
Create a find duplicate query
Create a find unmatched query
Create a top values query

20. Customize form objects

Learning Objectives

Create a custom form
Add combo boxes to a form
Manipulate controls on a form
Create a multi-page form
Add a sub-form to a form
Build calculated fields on a form
Add form headers & footers

21. Customize report objects

Learning Objectives

Create a custom report
Manipulate controls on a report
Build calculated fields in a report
Sort & Group data in a report
Create mailing labels

22. Complete a final project

Learning Objectives

Design a relational database
Create a relational database
Incorporate elements of Excel, Access, Word, and PowerPoint into a final project.
Adhere to specifications laid out in project directions

SCC Accessibility Statement

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