



Western Technical College

## 10106153 Advanced Spreadsheets

### Course Outcome Summary

#### Course Information

<b>Description</b>	Students study advanced Microsoft Excel applications and apply those applications to practical business case problems.
<b>Career Cluster</b>	Business Management and Administration
<b>Instructional Level</b>	Associate Degree Courses
<b>Total Credits</b>	3
<b>Total Hours</b>	72

#### Pre/Corequisites

Prerequisite 10103107 Intro to MS Excel and Access

#### Textbooks

*The Shelly Cashman Series Microsoft Office 365 & Excel 2021 Comprehensive with MindTap and Printed Access Card.* 1st Edition. Copyright 2023. Freund, Steven M. and Joy L. Starks. Publisher: Cengage Learning. **ISBN-13:** 978-0-357-67697-4. Required.

#### Learner Supplies

Webcam and headset with microphone. **Vendor:** To be discussed in class. Required.

#### Success Abilities

1. Cultivate Passion: Expand a Growth-Mindset
2. Cultivate Passion: Increase Self-Awareness

3. Live Responsibly: Embrace Sustainability
4. Live Responsibly: Foster Accountability
5. Refine Professionalism: Improve Critical Thinking

## **Program Outcomes**

1. Demonstrate effective workplace communications
2. Apply technology skills to business and administrative tasks
3. Perform routine administrative procedures
4. Manage administrative projects
5. Model professionalism in the workplace

## **Course Competencies**

### **1. Import data in an electronic spreadsheet .**

#### **Assessment Strategies**

- 1.1. Skills Exam
- 1.2. Objective Test

#### **Criteria**

*You will know you are successful when*

- 1.1. you import data in a spreadsheet
- 1.2. you use live preview feature to analyze data to create totals
- 1.3. you use live preview feature to analyze data to create charts
- 1.4. you find and replace data

#### **Learning Objectives**

- 1.a. Import data from outside date (database, text, and webpage)
- 1.b. Use live preview feature to analyze data to create totals and charts
- 1.c. Find and replace data

### **2. Create an electronic spreadsheet template.**

#### **Assessment Strategies**

- 2.1. Skills Exam
- 2.2. Objective Test

#### **Criteria**

*You will know you are successful when*

- 2.1. you create a spreadsheet template
- 2.2. you format a spreadsheet template
- 2.3. you use a template to create a new workbooks

#### **Learning Objectives**

- 2.a. Create a spreadsheet template with sample data and formulas
- 2.b. Format a spreadsheet template
- 2.c. Use a template to create a new workbook

### **3. Enhance electronic spreadsheets with advanced charts, graphics, images, and screenshots .**

#### **Assessment Strategies**

- 3.1. Skills Exam
- 3.2. Objective Test

#### **Criteria**

*You will know you are successful when*

- 3.1. you create charts
- 3.2. you create a graphic to display pictures and text
- 3.3. you add a hyperlinked screenshot

**Learning Objectives**

- 3.a. Create a bar chart
- 3.b. Create a line chart with a trendline
- 3.c. Create a graphic to display pictures and text
- 3.d. Add a hyperlinked screenshot

**4. Solve complex problems with an electronic spreadsheet .**

**Assessment Strategies**

- 4.1. Skills Exam
- 4.2. Objective Test

**Criteria**

*You will know you are successful when*

- 4.1. you verify all formulas are correct
- 4.2. you use precedents and dependent tracking
- 4.3. you use formula auditing tools to correct errors
- 4.4. you set data validation rules
- 4.5. you use various what-if features to solve problems
- 4.6. you create scenarios with Scenario Manager, Scenario Summary, and Scenario Pivot Tables

**Learning Objectives**

- 4.a. Analyze the workbook formulas in a workbook
- 4.b. Establish data validation rules to restrict cell contents
- 4.c. Use Goal Seek to solve a complex problem
- 4.d. Determine strategies for problem solving using a spreadsheet
- 4.e. Use Solver to analyze data
- 4.f. Create scenarios (Scenario Manager, Scenario Summary, and Scenario Pivot Tables) to track, compare, and interpret data

**5. Analyze data with PivotTable and PivotChart reports in an electronic spreadsheet.**

**Assessment Strategies**

- 5.1. Skills Exam
- 5.2. Objective Test

**Criteria**

*You will know you are successful when*

- 5.1. you create PivotTables
- 5.2. you change the PivotTables layout/view
- 5.3. you filter PivotTables
- 5.4. you format PivotTables
- 5.5. you apply PivotTables summary functions
- 5.6. you create PivotCharts
- 5.7. you change the PivotCharts view and contents
- 5.8. you create calculated fields in PivotTable and PivotChart reports
- 5.9. you create graphic objects (Sliders) to filter PivotTables and PivotCharts

**Learning Objectives**

- 5.a. Create PivotTable reports
- 5.b. Format PivotTable reports
- 5.c. Filter PivotTables reports
- 5.d. Use PivotTable reports summary functions
- 5.e. Format PivotTables reports
- 5.f. Create PivotCharts reports
- 5.g. Filter PivotCharts reports
- 5.h. Create calculated fields in PivotTable and PivotChart reports
- 5.i. Create graphic objects (Sliders) to filter PivotTables and PivotCharts

## 6. Analyze data using Power Tools in an electronic spreadsheet.

### Assessment Strategies

- 6.1. Skills Exam
- 6.2. Objective Test

### Criteria

*You will know you are successful when*

- 6.1. you transform data into an accessible spreadsheet table
- 6.2. you use Power Pivot
- 6.3. you use Power View
- 6.4. you use 3D Map to use geographic data

### Learning Objectives

- 6.a. Transform data into an accessible spreadsheet table
- 6.b. Use Power Pivot to create a PivotTable from multiple data sources
- 6.c. Use Power View to create a chart with multiple data sources or to use interactive tiles/data card visualizations
- 6.d. Use 3D Map to use geographic data

## 7. Design user interfaces in an electronic spreadsheet.

### Assessment Strategies

- 7.1. Skills Exam
- 7.2. Objective Test

### Criteria

*You will know you are successful when*

- 7.1. you create a home page in a spreadsheet
- 7.2. you automate data entry with macros in a spreadsheet
- 7.3. you design a user interface with controls
- 7.4. you set control properties
- 7.5. you write the Visual Basic code
- 7.6. you test the user interface

### Learning Objectives

- 7.a. Create a home page with hyperlinks in a spreadsheet
- 7.b. Record a macro in a spreadsheet
- 7.c. Name a macro a spreadsheet
- 7.d. Document a macro a spreadsheet
- 7.e. Execute a macro a spreadsheet
- 7.f. Design the user interface a spreadsheet
- 7.g. Record user input in a spreadsheet
- 7.h. Write Visual Base for Application (VBA) code in a spreadsheet
- 7.i. Test the user interface