Course Information Form (CIF)

Course Code: CIS 134

Course Title: Spreadsheet Applications (MS Excel)

Department: Business/Computer Science and Technologies
Effective Date: Summer 2026
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 11.0601
Repeatability: 0

Credit Hours

Catalog Notation: 3-0-3
Credit Hour Distribution:

Lecture: 3	Lab: 0	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Introduction to spreadsheets using Microsoft Excel; spreadsheet software for various business applications. Data entry, basic spreadsheet commands, worksheet design, formula development, macros, business charts, security and analysis tools. Credit not given for both CIS 134 and CTC 174 + CTC 175 + CTC 176.

General Course Objectives

To enable students to acquire and develop skill in the efficient use of spreadsheet applications on a computer.

Minimum Placement Levels

English	Reading	Math
None	None	None

Prerequisites

None

Methods of Evaluation

A minimum of 9 lessons, 9 projects, and 11 exams. GMetrix and MOS Certification exams.

Instructional Materials and Additional Supplies

Microsoft Excel 365 in Practice, SIMNet.

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Creating and Editing Workbooks	1. Create, save, and open an Excel workbook. 2. Create and edit labels and values in a worksheet. 3. Create functions to build a simple formula. 4. Modify appearance by formatting cell data with font attributes, borders, fill, cell styles, and themes. 5. Modify columns, rows, and sheets in a workbook. 6. Modify screen appearance of a workbook by adjusting zoom size, changing views, and freezing panes.	5	0	0
Working with Formulas and Functions	1. Create basic formulas and set mathematical order of operations in a formula. 2. Generate absolute, mixed, relative, and 3D references in a formula. 3. Write formulas with auditing tools in a worksheet. 4. Generate Statistical, Date and Time, Text, Financial, Logical, Lookup and Reference, and Math and Trig functions.	5	0	0
Creating and Editing Charts	1. Create Excel chart objects and chart sheets. 2. Insert and delete rows, columns, and cells. 3. Revise chart elements including titles, data labels, gridlines, and trendlines. 4. Revise chart format elements with shape styles, fill, outlines, and special effects. 5. Design a chart with icons, shapes, WordArt, and Alt Text. 6. Create pie charts, line charts, combo charts, and specialty charts. 7. Create and format Sparklines in a worksheet.	5	0	0
Getting and Managing Data	1. Create and format a list as an Excel table. 2. Apply Conditional Formatting rules as well as Color Scales, Icon Sets, and Data Bars. 3. Revise data order with Sort. 4. Revise data display with Filter. 5. Categorize with subtotals, groups, and outlines for tabular data in a worksheet. 6. Import data from text and database files and export data from a workbook. 7. Transform data using Flash Fill and Text functions. 8. Create and format a PivotTable.	4	0	0
Exploring Data Tools, Data Types, and Illustrations	1. Organize data with Consolidate in a workbook. 2. Revise format of values using built-in and custom formats. 3. Create illustrations in a worksheet. 4. Create hyperlinks in a worksheet. 5. Create workbook security by marking it as final or by setting a password.	4	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Exploring the Function Library	1. Create Database functions such as DSUM and DAVERAGE. 2. Create Logical functions including AND, OR, and IFS functions. 3. Explore the Lookup and Reference category. 4. Create Date and Time functions and calculations. 5. Create Text functions such as TEXT, UPPER, LOWER, and PROPER. 6. Create Financial functions such as PV, FV, and NPER. 7. Create statistical and Math and Trig functions such as SUMIFS, AVERAGEIFS, and STDEV.P. 8. Evaluate formulas and use the Watch Window.	7	0	0
Working with Templates and Collaboration	1. Create a workbook from an Excel template. 2. Create a custom template. 3. Create data validation, input messages, and error alerts. 4. Create Form Controls in a workbook. 5. Create worksheet and workbook protection to manage editing. 6. Review a workbook and check for issues such as accessibility and compatibility. 7. Share a workbook.	4	0	0
Developing and Using Macros	1. Create, run, edit, and delete an Excel macro. 2. Create a UserForm and use VBA functions. 3. Create and use a macros-only workbook.	4	0	0
Exporting, Importing, and Transforming Data	1. Create and manage scenarios for worksheet data. 2. Use Goal Seek and Solver. 3. Create data tables with one and two variables. 4. Create a forecast sheet for time-based data. 5. Create 3D maps.	4	0	0
Customizing Excel and Using OneDrive	1. Modify Excel options, the Ribbon, and the Quick Access toolbar to personalize the working environment. 2. Modify Office account settings and install an Office add-in. 3. Create a folder, add a file, and move and copy a file in OneDrive. 4. Modify OneDrive sharing options. 5. Create, edit, share, and collaborate on an Excel workbook in Office Online. 6. Explore Microsoft 365 applications and productivity tools.	2	0	0
Preparing for Certification Exam	1. Complete at least two GMetrix (CertPREP) practice exams to demonstrate readiness to take MOS certification exam.	1	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
45	0	0