CTS 130 Spreadsheet

COURSE DESCRIPTION:

Prerequisites: None
Corequisites: None

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.
Course Hours per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:
1. Create a simple spreadsheet in Microsoft Excel.
2. Create a chart in a spreadsheet in Microsoft Excel.
3. Apply functions/formulas in a spreadsheet in Microsoft Excel.

OUTLINE OF INSTRUCTION:

I.   Course Tools (for reference only) – Microsoft Online, One Drive, Cengage MindTap, & SAM
   A. Intro to MindTap
   B. Intro to SAM
   C. Using/Completing SAM Projects and Textbook Projects
   D. Microsoft Online and OneDrive

II.   Creating a Worksheet and a Chart
   A. Start an app
   B. Identify the components of the Microsoft Office ribbon
   C. Describe the Excel worksheet
   D. Enter text and numbers
   E. Use the Sum button to sum a range of cells
   F. Enter a simple function
   G. Copy the contents of a cell to a range of cells using the fill handle
   H. Apply cell styles
   I. Format cells in a worksheet
   J. Create a pie chart
   K. Change a worksheet name and sheet tab color
   L. Change document properties
   M. Preview and print a worksheet
   N. Use the AutoCalculate area to display statistics
   O. Correct errors on a worksheet
   P. Use Microsoft Office Help

III.   Formulas, Functions, and Formatting
    A. Use Flash Fill
    B. Enter formulas using the keyboard
    C. Enter formulas using Point mode
    D. Apply the MAX, MIN, and AVERAGE functions
    E.

V.   Financial Functions, Data Tables, and Amortization Schedules
   A.   Assign a name to a cell and refer to the cell in a formula using the assigned name
   B.   Determine the monthly payment of a loan using the financial function PMT
   C.   Understand the financial functions PV (present value) and FV (future value)
   D.   Create a data table to analyze data in a worksheet
   E.   Create an amortization schedule
   F.

L. Use the MATCH and INDEX functions to find a value in a table
M. Display automatic subtotals
N. Use outline features to group, hide, and unhide data
O. Create a treemap chart

VIII. Creating Templates, Importing Data, + Working with SmartArt, Images, and Screenshots
A. Create and use a template
B. Import data from a text file, an Access database, a webpage, and a Word document
C. Use text functions
D. Paste values and paste text
E. Transpose data while pasting it
F. Convert text to columns
G. Replicate formulas
H. Use the Quick Analysis gallery
I. Find and replace data
J. Insert and format a bar chart
K. Insert and modify a SmartArt graphic
L. Add pictures to a SmartArt GraphicI. LysiderrtAk AArtr15.1 (t)0.6 (8u)-0.6 (i)-6.A(i)-1.5 (l)-1.5 (e)-5.8 (p)-0.7(a)

E. Use trial and error to solve a problem on a worksheet
F. Use goal seeking to solve a problem
G. Circle invalid data on a worksheet
H. Enable the Solver add-in
I. Use Solver to solve a complex problem
J. Use the Scenario Manager to record and save sets of what-if assumptions
K. Create a Scenario Summary report
L. Create a Scenario Summary PivotTable
M. Draw with inking techniques

REQUIRED TEXTBOOK AND MATERIAL:

MindTap for The Shelly Cashman Series® Collection: Microsoft® 365® & Office® 2021

by Sandra Cable, Steven M. Freund, Ellen Monk, Susan Sebok, Joy L. Starks, Misty E. Vermaat, 1st Edition | Copyright 2023