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.

STUDENT LEARNING OUTCOMES:

Upon completion of this course the student will be able to:

a. Enter, edit, and format data in a spreadsheet.
b. Create expressions to calculate mathematical values.
c. Use built-in functions to manipulate data.
d. Create a variety of charts based on data.
e. Create customized printouts.
f. Manipulate data using spreadsheet database features.
g. Create templates.
h. Consolidate data from multiple worksheets and workbooks into a single worksheet.

OUTLINE OF INSTRUCTION:

I. Spreadsheet overview
   A. Windows applications
   B. Excel access system
   C. Worksheet border area and toolbars
   D. Printer output
   E. Disk storage
   F. Help facility

II. Excel basics
   A. Starting Excel
   B. The Excel window
   C. The worksheet
   D. Data entry
      1) Numeric
      2) Labels
      3) Formulas / functions
   E. Editing
   F. Online help
   G. Planning a worksheet
III. Formulas, formatting, and creating charts
   A. Order of numeric operations
   B. Entering formulas
   C. Using functions
   D. Saving Excel workbooks
   E. Applying formats to the workbook
   F. Applying number formats
   G. Changing column widths and row heights
   H. Spell checking
   I. Creating embedded charts
   J. Previewing and printing the workbook
   K. Displaying and printing formulas

IV. Enhancing a worksheet and chart
   A. Using Excel's fill handle
   B. Creating and customizing a series
   C. Copying a cell format
   D. Copying a range to a paste area
   E. Inserting and deleting cells
   F. Freezing workbook titles
   G. Absolute verses relative references
   H. Decision making - the IF function
   I. Creating charts
      1) Formatting charts
      2) Exploding pie charts
      3) Adding text boxes
      4) Changing colors
      5) Adding and formatting chart arrows

V. Templates and multiple sheeting
   A. Creating a template
   B. Saving the template
   C. Formatting the template
   D. Adding a chart to the template
   E. Creating a workbook from a template
   F. Referencing cells
   G. Adding comments to a workbook
   H. Adding headers and footers to a worksheet

VI. Sorting and filtering a worksheet database
   A. Creating a database
      1) Using a dataform
      2) Entering records
      3) Moving fields and records
   B. Sorting a database
      1) Ascending order
      2) Descending order
      3) undoing a sort
      4) Sorting multiple fields
   C. Displaying automatic subtotals
   D. Finding records using a dataform
   E. Filtering a database using autofilter
   F. Extracting records
   G. Comparison criteria for a database
REQUIRED TEXTBOOK AND MATERIALS:

Text to be assigned by the instructor each semester