CIT 234—Advanced Spreadsheet Applications (3)

Course Description
Advanced functions of a current spreadsheet software package will be covered, including data tables, scenarios, financial functions, creating and using template files, using hyperlinks, multiple worksheets and 3D formulas, creating and using command buttons and macros to automate repetitive tasks, and using data management features to sort, perform queries, and extract useful information. Emphasis will also be given to integration among various software applications. Lecture: 3 hours. Prerequisites: none

Course Competencies
Upon successful completion of this course, the student can:
1. apply advanced formatting to worksheet cells
2. create complex charts and edit objects within the chart
3. create data maps
4. work with multiple worksheets, including using templates effectively and 3D formulas
5. customize the spreadsheet environment
6. create and use macros to automate repetitive tasks
7. use auditing tools to review and track changes
8. insert hyperlinks in a spreadsheet file
9. create different scenarios for spreadsheet data
10. use the data management feature of spreadsheets to manipulate data and extract useful information
11. perform data integration by copying data and using object linking and embedding between applications

Course Outline

I. Advanced worksheet formatting
   A. Applying number format
   B. Creating and using custom formats and conditional formatting
   C. Using styles and autoformats
II. Creating complex charts
   A. Formatting text in a chart
   B. Changing chart types
   C. Enhancing charts
   D. Creating data maps
III. Managing multiple worksheets
   A. Creating Template files
   B. Creating and editing multiple worksheets simultaneously
   C. Building and organizing multiple-sheet files
   D. Linking data across worksheets
   E. Using 3-D formulas with multiple worksheets
   F. Annotating worksheets with comments and text boxes
   G. Using protection on a worksheet
IV. Customizing the spreadsheet environment
   A. Changing default settings
   B. Editing toolbars and other options
   C. Splitting and freezing windows
   D. Arranging multiple windows
V. Creating macros using Visual Basic for Applications
   A. Using command buttons to execute a macro
   B. Creating and editing macros in VBA to allow screen input
VI. Other Advanced Spreadsheet Features
   A. Using mathematical, statistical, logical and financial functions
   B. Adding hyperlinks to worksheets
   C. Saving worksheets as HTML files for publishing on the World Wide Web
   D. Storing different assumptions as scenarios
   E. Using Auditing Tools, such as Trace Precedents and Trace Dependents
VII. Database Functions in a Worksheet
   A. Naming ranges in a database
   B. Sorting data within a database range
   C. Using criteria to extract information from a database range
   D. Creating pivot tables
VIII. Data Integration
   A. Copying data between applications
   B. Object Linking and Embedding (OLE) between applications
   C. Importing data from other applications
   D. Publishing worksheet data on the Internet