

## **CIT 130—Microcomputer Applications (3)**

### Course Description

Students use a microcomputer and current word processing, spreadsheet, database, and presentation software to solve common business problems. Basic features of each software application are covered, as well as requirements, capabilities, and limitations. Lecture: 3 hours. Prerequisites: CIT 105 or consent of instructor.

### Course Competencies

Upon successful completion of this course, the student can:

1. use a word processing package to create, edit, print, and save documents
2. use productivity features of a word processing package such as spell check, grammar check, and thesaurus
3. make formatting changes to a document, including changes in font, color, line spacing, margins, alignment, headers and footers, and page numbers
4. use features such as Cut, Copy and Paste to move and copy within a document and between documents
5. insert pictures and Clipart into word processing documents
6. use templates and wizards to aid in the creation of common business and personal documents
7. save word processing documents in HTML format for publishing to the World Wide Web
8. use a spreadsheet package to create common business reports and budgets
9. use mathematical formulas and common statistical, date, financial, and logical functions
10. make formatting changes to a worksheet including changes in font, color, column width/row height, margins, alignment, headers and footers, and borders
11. create effective charts, including bar, line, and pie charts, to accompany business reports
12. use Object Linking and Embedding (OLE) to include spreadsheet data in a word processing document
13. use a relational database management program to create tables, queries, forms, reports and labels
14. extract useful information from a database using simple and compound conditions in queries
15. join tables in a database in order to obtain useful information from multiple sources
16. plan and create an electronic slide show presentation using a presentation software package
- 17.

### Course Outline

- I. Word Processing Fundamentals
  - A. Basic Terminology
  - B. Creating a Document in Word Processing

1. Printing a document
2. Saving/closing a document
- C. Character, Paragraph, and Page Formatting
  1. Changing fonts and point size
  2. Changing line spacing and paragraph alignment
  3. Changing margins
  4. Adding headers, footers, and page numbers
- D. Editing Tools
  1. Using Cut, Copy, and Paste to move/copy text
  2. Using Spell Check, Grammar Check, and the Thesaurus
  3. Using Find/Replace
- E. Other Word Processing Features
  1. Inserting tables into a document
  2. Inserting Pictures, Clipart and other images into a document
  3. Working with multiple documents
  4. Saving word processing documents in HTML format for publishing to the World Wide Web

## II. Spreadsheet Fundamentals

- A. Basic Terminology and Uses of Spreadsheets
- B. Creating a Worksheet
  1. Entering text, numbers into cells
  2. Entering formulas using relative and absolute cell addresses
  3. Using built-in functions to perform common statistical, date, financial and logical calculations
  4. Printing a worksheet
  5. Displaying and printing cell formulas
  6. Saving/closing a worksheet
- C. Formatting and Editing a Worksheet
  1. Changing fonts and point size
  2. Changing column width and row height
  3. Changing the format of numeric cells and ranges
  4. Inserting headers and footers
  5. Applying shading and border lines to enhance a worksheet
  6. Copying and moving cell ranges
  7. Using multiple worksheets
  8. Using What-If Analysis to change assumptions
- D. Creating Charts
  1. Characteristics of bar, line, and pie charts and examples of when each is appropriate
  2. Selecting ranges in a worksheet from which to create a chart
  3. Enhancing a chart with color, titles, font changes, and drawn objects
  4. Editing chart objects
- E. Using Object Linking and Embedding (OLE) to include worksheet data in a word processing document

### III. Database Fundamentals

- A. Basic Terminology
- B. Design Issues and Determining Field Structure
- C. Creating a Database
  - 1. Creating tables to hold source data
  - 2. Setting a primary key for a table
  - 3. Adding records to a table
  - 4. Creating a simple form to display records
- D. Other Database Features
  - 1. Creating and editing reports from tables
  - 2. Creating queries using simple and compound criteria
  - 3. Sorting records in a table and a query
  - 4. Joining tables in a query
  - 5. Using calculated fields in a query
- E. Maintaining a Database
  - 1. Adding, editing, and deleting records in a table
  - 2. Changing the structure of a table
  - 3. Using validation rules and referential integrity
  - 4. Using indexes to order records
- F. Integrating worksheet data into a database

### IV. Presentation Applications

- A. Design aspects of creating applications
  - 1. Using color, fonts, and white space effectively
  - 2. Using a unifying theme throughout a presentation
- B. Creating an Electronic Slide Show Using Presentation Software
  - 1. Using templates
  - 2. Creating a blank presentation
  - 3. Using outline view to enter text
  - 4. Using embedded visuals to enhance a slide show