IT-1090: COMPUTER APPLICATIONS

Cuyahoga Community College

Viewing: IT-1090 : Computer Applications
Board of Trustees:
June 2022

Academic Term:
Fall 2022

Subject Code
IT - Information Technology

Course Number:
1090

Title:
Computer Applications

Catalog Description:
Overview of the computer techniques and skills used in a professional environment. Instruction and hands-on training in file management, word processing, spreadsheet, presentation software, electronic collaboration, and professional Internet usage. Practical applications in researching, creating, editing, saving, presenting, and printing computer generated materials in a professional manner.

Credit Hour(s):
3

Lecture Hour(s):
2
Lab Hour(s):
2

Requisites

Prerequisite and Corequisite
Recommend BT-1000 Keyboarding and Document Formatting for students who type less than 25 wpm or have no keyboarding experience.

Outcomes

Course Outcome(s):
Demonstrate effective and responsible use of personal computer technology.

Objective(s):
1. Identify hardware and software systems with a focus on personal computers and emerging technologies.
2. Identify the components of a computer system.
3. Demonstrate efficient file management techniques using an operating system's file management tools.
4. Evaluate the current value, the potential value, the limitation, and potential dangers (e.g., violation of privacy, copyright, software piracy, and computer crime) in the use of computers.
5. Apply appropriate technology tools and resources to locate and retrieve information from various sources (e.g., on-line, libraries, etc.).
6. Demonstrate use of email systems and use proper etiquette and netiquette when communicating electronically.
7. Navigate Intranet and Internet applications.
8. Recognize fundamental networking technologies (e.g., wireless, cellular).

Course Outcome(s):
Describe the basic concepts of information systems.

Objective(s):
1. Define the components of an Information System.
2. Evaluate the role of information systems in supporting organizational goals.
3. Evaluate the ethical, social, and political impact of information systems.
4. Evaluate the strengths and weaknesses of computer functions and information systems.

Course Outcome(s):

Use current software to create documents and manipulate text data.

Objective(s):
1. Create documents (e.g., letters, memos, reports) using blank forms and predesigned templates.
2. Insert, delete, and move text within a document.
3. Use cut, copy, and paste functions to edit documents.
4. Format documents by modifying margins, tab settings, line spacing, alignment settings, page setup, headers/footers, and page numbers.
5. Create a list/outline.
6. Change text fonts, font sizes, and character formatting styles (bold, italic, etc.).
7. Enhance a document using styles, style sets, and themes.
8. Locate/replace text using search and replace functions.
9. Use word processing review tools (spelling and grammar checking, thesaurus).
10. Add images to a document and enable word wrapping around images.
11. Make documents ADA compliant.
12. Use reference tools to add sources to a document, insert inline citations, and create a work cited page.

Course Outcome(s):

Use spreadsheet software to organize and manipulate numerical data.

Essential Learning Outcome Mapping:

Quantitative Reasoning: Analyze problems, including real-world scenarios, through the application of mathematical and numerical concepts and skills, including the interpretation of data, tables, charts, or graphs.

Objective(s):
1. Enter text and numbers into spreadsheets.
2. Perform calculations using simple formulas and predefined functions.
3. Format numeric and non-numeric cell entries to produce professional-looking worksheets.
4. Explain the difference between a relative reference and an absolute reference, and how to apply absolute references when necessary.
5. Utilize cut, copy, and paste functions to edit spreadsheet data.
6. Create charts and graphs from spreadsheets.

Course Outcome(s):

Use presentation software to create and manipulate presentation materials.

Objective(s):
1. Add, modify, and remove templates in a presentation.
2. Insert images into presentation slides.
3. Use Picture Format Tools to set a Picture Style, adjust the Color, and add an Artistic Effect.
4. Add transitions, animations, and sound effects to slide shows.
5. Add narrations to a presentation.
6. Run slide shows manually and automatically.

Course Outcome(s):

Use database software to create and manipulate databases.

Objective(s):
1. Explain basic database concepts, including the terms field, record, file, table, and database.
2. Define the structure, create, and enter data into a database table.
3. Edit the design of a database table.
4. Edit the content of a database table (e.g., add, delete, and modify records).
5. Sort and filter records in a table.
6. Create queries on one or more tables to search for specified records.
7. Create forms to enter, edit, view, and maintain data.
8. Generate formatted reports from table or query results.

Methods of Evaluation:
The student will demonstrate the extent of his/her learning by one or more of the following methods of evaluation:
1. Class participation and discussion.
2. Reports (oral and written)
3. Classwork/Homework assignments.
4. Computer lab projects (simulated office/business problems).
5. Projects
6. On-line quizzes and computerized examinations.
7. Computer lab production quizzes and examinations.
8. *Other methods deemed appropriate by the IT Center of Excellence.*

Course Content Outline:
1. **Identify the Basic Parts of a Personal Computer.**
   a. Computer Hardware components
      i. Input devices
      ii. Output devices
      iii. Basic internal computer components
   b. Software components of a microcomputer
      i. Operating Systems
      ii. Productivity Applications
   c. Information Systems
      i. Hardware
      ii. Software
      iii. Data
      iv. People
      v. Process
2. **Use the Windows operating system to perform basic file maintenance tasks, navigate within the Windows environment, and operate integrated software applications.**
   a. Desktop environment
      i. Icons
      ii. Taskbar
      iii. Menus
   b. Data file manipulation
      i. Name
      ii. Save
      iii. Retrieve
      iv. Edit
   c. File maintenance
      i. Copy
      ii. Move
      iii. Rename
      iv. Delete files
   d. Use of folders (directories) and subfolders (subdirectories).
   e. Window manipulation
      i. Maximize
      ii. Minimize
      iii. Restore

        iv. Close
        v. Resize
        vi. Move

   f. Common navigation tools
        i. Tabs
        ii. Ribbon
        iii. Groups
        iv. Dialog Box Launcher
        v. Quick Access Toolbar
        vi. Scrollbars

   g. Common functions across applications
        i. Cut
        ii. Copy
        iii. Paste

3. **Use a word processing program to create, enter, edit, format, print and save documents.**

   a. Create documents
        i. Blank forms
        ii. Predesigned templates (e.g., letters, memos, reports)

   b. Editing documents
        i. Inserting text
        ii. Deleting text
        iii. Moving text
        iv. Cut
        v. Copy
        vi. Paste

   c. Formatting documents
        i. Setting and modifying margins
        ii. Tab settings
        iii. Line spacing
        iv. Alignment settings
        v. Page setup
        vi. Headers/footers
        vii. Page numbers

   d. Enhancing documents
        i. Fonts
        ii. Font sizes
        iii. Character formatting styles (bold, italic, etc.)
        iv. Styles
        v. Style Sets
        vi. Themes

   e. Locate/replace text using search and replace functions

   f. Basic ADA compliance/using alternate text images in a document

   g. Word processing review tools
        i. Spell checker
        ii. Grammar checker
        iii. Thesaurus

   h. Managing sources
        i. Adding sources to a document
        ii. Adding inline citations
        iii. Adding a work cited page to a document

   i. Printing documents
        i. Print preview functions
        ii. Print functions
        iii. Number of copies
        iv. Duplexing or one-sided
        v. Selected pages or whole document

   j. Saving documents

   k. Word processing help feature

4. **Use an electronic spreadsheet program to create, enter, edit, format, print and save electronic worksheets containing formulas and functions.**
    a. Designing spreadsheets
        i. Formatting
            A. Numeric cell entries
            B. Non-Numeric cell entries
        ii. Calculations
            A. Simple Formulas
            B. Pre-defined functions
            C. Relative vs Absolute Referencing
        iii. Charts and Graphs
    b. Editing spreadsheets
        i. Cut
        ii. Copy
        iii. Paste
    c. Print functions and options
    d. Name and Save functions
    e. Online spreadsheet help features
5. **Use presentation programs to create, enter, edit, print, save, and present computer-generated presentations and handouts.**
    a. Creating presentations and handouts
        i. Templates
        ii. Clip Art
        iii. Smart Art Objects
        iv. Transitions
        v. Automatic run vs. manual run
        vi. Saving
    b. Editing presentations
        i. Copying from one to another
        ii. Changing/removing templates
    c. Printing presentations
        i. Single slide
        ii. Entire presentation
        iii. Outline
        iv. Notes
    d. Online software help features
6. **Use a database/file management program to build, manage and save data files**
    a. Terminology
        i. Field
        ii. Record
        iii. File
        iv. Table
        v. database
    b. Design
        i. Simple single database table
        ii. Creating and entering data
    c. Editing table design
    d. Sorting and Filtering
    e. Creating Queries
    f. Creating Forms
    g. Creating Reports
    h. Saving
    i. Online software help features
7. **Use websites and online-resources to perform basic research and to stay informed.**
    a. Connecting to the Internet
        i. Local Area Network
        ii. Wi-Fi
        iii. Cellular Connecting
    b. Internet and the World Wide Web

       i. Internet Service Providers
      ii. Browsers
     iii. Search engines
     iv. Tracking of browsing activity
  c. Searching the WWW
       i. Advanced search features
      ii. Specialized search engines
  d. Finding 'good' information
       i. Reputable
      ii. Timely
     iii. Unbiased
  e. Legal Considerations
       i. Plagiarism
      ii. Piracy
     iii. Copyright
     iv. Violation of privacy
      v. Computer crime
  f. Identifying potential risks
       i. Viruses
      ii. Trojans
     iii. Worms
     iv. Phishing
      v. Spoofing
     vi. Ransomware

8. **Use Web based tools to collaborate and communicate.**
  a. Electronic mail systems
       i. Basic purposes and functions
      ii. Login and password functions
  b. Collaborate using Cloud solutions
       i. Setting up a joint document
      ii. Saving and printing documents from the cloud
  c. Connecting with Social Media
       i. Creating personal connections
      ii. Creating professional connections
         A. LinkedIn
  d. Understanding Risks and Privacy issues
       i. Where personal information can be stored
      ii. Lack of privacy in social media
  e. Professional ethics, conduct and "netiquette"

9. **Impact of Emerging Technologies**
  a. Opportunities created by current and emerging technologies
  b. Ethical, social, and political impacts of current and emerging technologies
  c. Human roles vs. computer/robotic roles

10.

11.

Resources

Humphrey, M.L. *Microsoft Office 2019 Beginner*. M.L. Humphrey, 2021.

Gaskin, Shelly, Alicia Vargas, Debra Geoghan, and Nancy Graviett. *GO! with Microsoft Office 365 Getting Started*. Upper Saddle River, NJ: Prentice Hall, 2021.

Weixel, Suzanne. *Introduction to Computers and Information Technology*. 3rd ed. New York: Pearson Education, Inc., 2019.

Nordell, Randy. *Microsoft Office 365 in Practice*. 2019 Edition. McGraw-Hill Education, 2019.

Resources Other

1. GFC Global
   https://edu.gcfglobal.org/en/topics/office/ (https://edu.gcfglobal.org/en/topics/office/)
2. *Microsoft Office 365 Training Center.*   https://support.office.com/en-us/office-training-center *(https://support.office.com/en-us/office-training-center/)*
3. Microsoft. (n.d.). Office 365 Training Center. Retrieved from Microsoft Office Support: https://support.office.com/en-us/office-training-center (https://support.office.com/en-us/office-training-center/)
4. https://www.w3schools.com/

Instructional Services

OAN Number:

Transfer Assurance Guide OBU003

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