# Competency: Basic Computer Terminology and Concepts

- 1. Use and understand basic computer terminology.
- 2. Explain the purpose, operation, and care of hardware components.
- Install, configure, optimize, and upgrade operating software and application software on computers and other portable devices.
- 4. Identify tools, diagnostic procedures, and troubleshooting techniques for components and operating systems for personal computers, laptops, and portable devices.
- Apply basic commands and navigate the operating system including such things as creating backups and determining memory and disk space.
- 6. Input data and commands using peripherals (keyboard, light pen, mouse, scanner, and voice recognition).
- 7. Manage file storage through the use of file and disk management techniques such as copy, move, store, rename, retrieve, save, delete, compress, decompress, and create/manipulate folders and directories.
- 8. Use a browser to search and navigate hypertext documents and to download files.
- 9. Use Internet search engines and understand their advantages and disadvantages.
- 10. Evaluate the accuracy, relevance, and comprehensiveness of information retrieved from the Web.
- 11. Identify the different parts of a browser window (pull-down menus, toolbar, address box, status bar, scroll bar, close button, maximize and minimize buttons, and title bar).
- 12. Analyze emerging technologies used by business and industry.
- 13. Identify the fundamental principles and basic concepts of installing, configuring, optimizing, and upgrading printers and scanners.
- 14. Identify tools and diagnostic procedures to troubleshoot printers and scanners and perform basic printer functions (load paper, change cartridge, repair paper jam, etc.).
- 15. Identify and use appropriate resources to obtain assistance (Help menu, manuals, Web site).
- 16. Evaluate advantages and disadvantages of various processing, storage, retrieval, and transmission technologies.
- Identify the fundamental principles and basic concepts of networks including installing, configuring, optimizing, and upgrading.
- 18. Identify network devices including network connectivity hardware and describe their functions.

# Competency: Basic Application Knowledge and Word Processing

## **Tasks**

- 1. Use help features and reference materials to learn software and solve problems.
- 2. Create, save, and retrieve word processing files.
- 3. Use word processing software to create, format, and edit business documents such as letters, memoranda, reports, tables, and resumes in mailable form.
- 4. Demonstrate the use of character formatting features (bold, underline, italics, font styles and sizes, superscript, and subscript).
- 5. Demonstrate the use of paragraph formatting features (tabs, indentations, line spacing, and enumerated items).
- 6. Demonstrate the use of page formatting features (margins, justification, vertical placement, orientation, page breaks, headers, and footers).
- 7. Demonstrate document editing skills using spell/grammar check, thesaurus, search/replace, and other document properties.
- 8. Create documents using mail merge features.
- 9. Create and use macros and templates.

## Competency: Spreadsheet and Database Applications

- 1. Define spreadsheet terminology (cell, row, column, range, label, value, formula, function, worksheet, relative, absolute, and legend).
- 2. Create, edit, save, and print worksheets using spreadsheet commands, functions, and formulas.
- 3. Design and enhance worksheets by inserting, deleting, moving, and copying columns and rows.
- 4. Use electronic spreadsheet to create, save, print, modify, and obtain graphs and appropriate charts with titles and legends.
- 5. Rename, rearrange, and manipulate multiple worksheets in a workbook.
- 6. Use an electronic spreadsheet program to enhance the appearance of a spreadsheet by changing fonts, foreground and background colors, and centering text across columns.
- 7. Define database terminology (query, DBMS, field, record, file, and data type).
- 8. Plan and create a database.
- 9. Enter data and edit fields and records for a particular situation.
- 10. Query, sort, prioritize, merge, and retrieve data from databases.
- 11. Use a database management program to create, format, maintain, and print reports and tables from a simple relational database.

# Competency: Presentation, Publishing, and Multimedia Applications

# **Tasks**

- Identify components of a presentation program (layout views, slide, toolbars, and dialog box).
- 2. Use presentation software to create a presentation with multiple types of slides incorporating effective use of text, graphics, fonts, builds, preset animation, and transitions.
- 3. Use presentation software to include diagrams, color and graphic modifications, animation schemes, custom backgrounds, action buttons, hyperlinks, sound, video, and speaker notes.
- 4. Deliver presentation with supporting materials.
- 5. Apply desktop publishing principles to create, design, edit, and produce documents using text and graphics.
- 6. Create visual communications involving text and graphic data (brochures, pamphlets, fliers, and newsletters).
- 7. Utilize graphic manipulation techniques (wrap text, Word Art) to insert visual aids into document.
- 8. Create visual communications involving art work (freehand drawing applications, clip art, digitized images).
- 9. Save cropped or modified images in different file formats.
- 10. Demonstrate input of data and graphics from various sources (Web, scanner, digital camera).
- 11. Design, create, edit, and format web pages incorporating various types of media (text, image, video, and audio).
- 12. Apply multimedia software to create multimedia projects.

# Competency: E: E-mail, Integrated and Collaboration Applications

- Produce documents integrating word processing, spreadsheet, and related charts, database files, reports, and presentation files.
- 2. Use an electronic mail program to send and receive electronic mail including an attachment.
- 3. Manage personal schedule and contact information to include distribution lists.
- 4. Research privacy issues related to e-mail accounts and dangers of receiving e-mails from unknown sources.
- 5. Identify inappropriate actions related to forwarding and mass e-mailings.
- Demonstrate skills using word processing, spreadsheet, database, and presentation software to complete workgroup collaboration to include inserting and reviewing comments.
- 7. Use collaborative/groupware applications to manage shared schedule, contact information, shared files, online information, instant messaging, or virtual meetings.

# Competency: Netiqette and Legal

## **Tasks**

- Explain concepts related to copyright rules and regulations and public domain (images, music, video, and software).
- Demonstrate a basic understanding of issues regarding software copyright, software licensing, and software copying.
- 3. Discriminate between ethical and unethical uses of computers and information.
- 4. Identify potential abuse and explain the consequences of illegal and unethical use of information technologies (piracy, illegal downloading, licensing infringement, and inappropriate use of software, hardware, and mobile devices).
- Apply netiquette skills to create, send, receive, and reply to electronic communications, including e-mail and telephone.

# **Competency: Security**

#### **Tasks**

- 1. Identify security issues related to computer hardware, software, and data use.
- Explain concepts of security, integrity, courtesy, and confidentiality related to information and communication systems.
- 3. Adhere to privacy, safety and security policies and legislation (acceptable use policy, Web page policies, computer crime, fraud, and abuse).
- 4. Demonstrate an awareness of computer viruses and basic understanding of ways to protect a computer from viruses.
- 5. Diagnose and troubleshoot hardware, software, and data security issues.
- 6. Perform preventative maintenance techniques for computer security.

# Competency: Formatting, Grammar, Punctuation, Spelling, and Proofreading

- 1. Apply basic formatting procedures and manipulate data in letters, reports, simple tables, spreadsheets, graphics, graphs and charts, and databases.
- 2. Use correct grammar, spelling, and punctuation when producing documents.
- 3. Utilize appropriate functions and references for spelling, grammar, and proofreading.
- 4. Use appropriate capitalization, punctuation, number expression rule, and editing/proofreading skills to produce mailable documents.

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