

## **Course Overview Software Applications III**

### **Unit 1 Word Processor (Advanced Features) 12 hours**

- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
- Goal 5:** The student will demonstrate the ability to use application programs.
- Goal 6:** The student will demonstrate the ability to access and store information.
- Goal 7:** The student will demonstrate the ability to apply computer science concepts.

**Objective A. The student will perform formatting with Special Features including:**

- 1.1 Using AutoText
- 1.2 Affecting Text Flow
- 1.3 Adding Borders and Shading
- 1.4 Finding and Replacing Special Formatting and Characters
- 1.5 Creating Footnotes and Endnotes
- 1.6 Formatting Pages in a Document
- 1.7 Creating and Balancing Columns.

**Objective B. The student will merge documents, and sort and select data by:**

- 1.8 Creating a Data Source with Mail Merge Helper
- 1.9 Creating a Main Document
- 1.10 Merging Files
- 1.11 Viewing Merged Records in a Main Document
- 1.12 Editing the Data Source
- 1.13 Merging Envelopes
- 1.14 Merging Mailing Labels
- 1.15 Sorting Text
- 1.16 Sorting Records in a Data Source
- 1.17 Selecting Records.

**Objective C. The student will perform formatting with macros and styles by:**

- 1.18 Creating Macros
- 1.19 Running a Macro
- 1.20 Recording a Macro with fill-in Fields
- 1.21 Editing a Macro
- 1.22 Formatting with Styles.

**Objective D. The student will add visual appeal to documents by:**

- 1.23 Inserting and Customizing Clip Art Images
- 1.24 Aligning Graphic Elements
- 1.25 Adding Bitmapped Graphics
- 1.26 Performing Calculations in a Table
- 1.27 Importing, Modifying, and Creating Worksheets in a Table
- 1.28 Creating a Chart with Data in a Word Table
- 1.29 Importing Data Into a Chart
- 1.30 Using the AutoSum button to sum columns in a table
- 1.31 Modifying a chart in Microsoft Graph
- 1.32 Using the Draw Table feature to create a table
- 1.33 Adding picture bullets to a list
- 1.34 Creating and applying a character style
- 1.35 Applying watermarks, drop-caps, and vertical rules to add visual appeal
- 1.36 Using paste special
- 1.37 Applying comments to a document
- 1.38 Comparing and Merging documents.

**Unit 2 *Excel* (Advanced Features) 14 hours**

- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
- Goal 5:** The student will demonstrate the ability to use application programs.
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**Objective A. The student will format *Excel* Worksheets using advanced formatting techniques such as:**

- 2.1 Applying Number Formats
- 2.2 Creating Custom Formats using a customized format code
- 2.3 Automatically Adjusting Column Widths and Row Heights
- 2.4 Creating, Applying, and Editing Styles
- 2.5 Using the Format Painter Button
- 2.6 Applying Borders and Shading
- 2.7 Using the Comma Style button to use the dash to represent zeros
- 2.8 Using AutoFormat
- 2.9 Using Conditional Formatting
- 2.10 Adjusting the Layout of a Worksheet
- 2.11 Using the Paste Special Command
- 2.12 Hiding and Unhiding Rows, Columns, and Sheets

- 2.13 Using the Page Break Preview Command
- 2.14 Renaming Sheets.

**Objective B. The student will work with templates and workbooks by:**

- 2.15 Using *Excel* Templates
- 2.16 Creating a New Template
- 2.17 Editing a Template
- 2.18 Using Multiple Workbooks
- 2.19 Linking Workbooks
- 2.20 Using multiple sheets in a formula (3D-reference)
- 2.21 Using names and Set Print Area command to print sections of a Worksheet.

**Objective C. The student will perform calculations using advanced functions such as:**

- 2.22 Entering a Function
- 2.23 Calculating Financial Functions
  - PV
  - PMT
  - FV
- 2.24 Calculating Database Functions
  - DCOUNT
  - DAVERAGE
- 2.25 Naming and using a Named Range in an *Excel* Formula
- 2.26 Using the Lookup and Reference Functions
  - VLOOKUP
  - HLOOKUP
- 2.27 Calculating Logical Functions
  - IF
- 2.28 Using a pointer.

**Objective D. The student will create, sort, and query a Worksheet database by:**

- 2.29 Creating a Worksheet database
- 2.30 Adding computational fields to a database
- 2.31 Changing the range assigned to a named database
- 2.32 Using a data form to display records, add records, delete records, add change field values in a Worksheet database
- 2.33 Sorting a Worksheet database
- 2.34 Filtering data
- 2.35 Printing a Worksheet database.

### **Unit 3 Desktop Presentations (Advanced Features) 10 hours**

- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
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**Objective A. The student will add visual elements to a *PowerPoint* presentation by:**

- 3.1. Adding a Chart
- 3.2. Adding an Object
- 3.3. Adding a Table
- 3.4. Adding an Organizational Chart
- 3.5. Adding Clip Art.

**Objective B. The student will modify a presentation by importing and exporting data by:**

- 3.6. Modifying the Slide Sequence
- 3.7. Finding and Replacing Text
- 3.8. Spell Checking a Presentation
- 3.9. Formatting Slides
- 3.10. Inserting Data from Other Sources.

**Objective C. The student will customize and create a slide show presentation by:**

- 3.13 Changing the Background
- 3.14 Changing Color Schemes
- 3.15 Changing the Design Template
- 3.16 Adding Transitions and Sound Effects
- 3.17 Hiding Slides
- 3.18 Adding hyperlinks to slides
- 3.19 Rehearsing timings
- 3.20 Using Slide Master.

**Objective D. The student will create output and deliver slide presentations by:**

- 3.21 Printing a Slide Presentation
- 3.22 Saving a Slide Presentation Using Pack and Go

- 3.23 Saving a Slide Presentation for the Internet
- 3.24 Saving Slides as Graphic Files
- 3.25 Adding and View Speaker Notes
- 3.26 Delivering a Slide Presentation Using Slide Show.

#### **Unit 4 Databases 12 hours**

- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
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#### **Objective A. The student will build and modify database forms by:**

- 4.1 Creating Controls
- 4.2 Creating a Form Using the Form Wizard
- 4.3 Building a Form Using Design View
- 4.4 Adding Titles and Graphics to a Form
- 4.5 Customizing the Form Header, Detail, and Form Footer Sections
- 4.6 Resizing, Moving, and Editing Control Objects
- 4.7 Modifying Control Properties
- 4.8 Creating a Calculated Control
- 4.9 Forming Properties
- 4.10 Creating a Form with Two Tables
- 4.11 Creating a Switchboard
- 4.12 Using subforms
- 4.13 Creating a combo box on a form
- 4.14 Creating, modifying, and running macros.

#### **Objective B. The student will refine queries by:**

- 4.15 Applying Filters to a Query
- 4.16 Joining Two Tables in a Query
- 4.17 Performing Calculations in a Query
- 4.18 Creating a Cross Tab Query
- 4.19 Creating a Parameter Query
- 4.20 Creating an Action Query
- 4.21 Specifying Multiple Criteria for a Query in Design View
- 4.22 Modifying Field Properties.

**Objective C. The student will create reports in a database by:**

- 4.23 Identifying the Parts of a Report
- 4.24 Creating a Report in Design View
- 4.25 Modifying a Report in Design View
- 4.26 Printing a Report
- 4.27 Sorting Records in a Report
- 4.28 Grouping Records in a Report
- 4.29 Adding Graphics to a Report
- 4.30 Modifying Properties for a Report, Section, or Control
- 4.31 Creating a report using the Report Wizard
- 4.32 Calculating a Total or an Average.

**Objective D. The student will define relationships in a database by:**

- 4.33 Identifying Relationships in a Database
- 4.34 Defining Relationships Between Tables
- 4.35 Viewing Existing Relationships Between Tables
- 4.36 Printing the Relationships Window
- 4.37 Understanding Referential Integrity
- 4.38 Editing an Existing Relationship
- 4.39 Using Cascading Updates and Cascading Deletes
- 4.40 Understanding Join Types.

**Unit 5 Desktop Publishing Software 6 hours**

- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
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**Objective A. The student will use basic components of desktop publishing software by:**

- 5.1 Describing the uses and characteristics of a desktop publishing program
- 5.2 Incorporating effective design elements in a desktop publishing document
- 5.3 Describing the advantages and disadvantages of creating a publication using:
  - Wizards
  - Templates

- Cue Cards
- Start from scratch.
- 5.4 Using the following basic tools:
  - Pointer
  - Text frame
  - Table
  - Word Art
  - Picture
  - Wizard
  - Drawing
- 5.5 Importing clip art and pictures into publications
- 5.6 Using the following editing features:
  - Cut
  - Copy
  - Paste
  - Delete (frames).
- 5.7 Using layout grid lines to aid design
- 5.8 Using the following formatting features:
  - Character
  - Indents and Lists
  - Line Spacing
  - Tabs
  - Border
  - Border Art
  - Shading
  - Shadow.
- 5.9 Connecting and disconnect frames
- 5.10 Importing text into publications
- 5.11 Inserting graphics acquired from a capture device.

## **Unit 6 Telecommunications and the Internet 5 hours**

- Goal 2:** The student will demonstrate the ability to appreciate technology.
- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
- Goal 4:** The student will demonstrate the ability to understand the impact of technology.
- Goal 5:** The student will demonstrate the ability to use application programs.
- Goal 6:** The student will demonstrate the ability to access and store information.
- Goal 7:** The student will demonstrate the ability to apply computer science concepts.

**Objective A. The student will describe the components of various telecommunications networks by:**

- 6.1 Comparing the major types of telecommunications networks including:
  - Client/Server
  - Peer-to-Peer
- 6.2 Comparing direct and remote Internet access
- 6.3 Comparing the features of the major telecommunications services provided over the Internet including:
  - FTP
  - Gopher
  - Newsgroups
  - Telnet
  - World Wide Web (WWW).

**Objective B. The student will view the World Wide Web and use techniques to manipulate a browser by:**

- 6.4 Navigating the Internet using WWW browser features including:
  - Text and graphic links
  - Direct entry by Uniform Resource Locator (URL)
  - Forward and Backward access to a series of previously visited pages
  - Multiple windows.
- 6.5 Viewing web pages saved on a local computer
- 6.6 Accessing images saved on a local computer
- 6.7 Viewing web pages printed on paper
- 6.8 Downloading images, files, and programs using a telnet helper application program
- 6.9 Adjusting font size
- 6.10 Finding specific text within a web page
- 6.11 Reloading a web page
- 6.12 Using on-line help menus to master new program functions and capabilities.

**Objective C. The student will use search techniques to find information on the Internet by:**

- 6.13 Using electronic methods for locating information on the Internet including:
  - Directories
  - Individual
  - Meta search engines.
- 6.14 Using the Internet and appropriate search techniques to complete assigning tasks and projects

**Objective D. The student will understand and apply knowledge of:**

- 6.15 Using the Network – Netiquette
- 6.16 Internet Privacy Issues
- 6.17 Internet Use Agreements
- 6.18 The Social and Ethical Implications of Computers
- 6.19 Protecting Computer Software and Data
- 6.20 The Ethical Responsibilities of the Web Developer.

**Unit 7 Advanced Graphics and Sound 6 hours**

- Goal 3:** The student will demonstrate the ability to use the computer as a problem solving tool in all appropriate subject areas.
- Goal 4:** The student will demonstrate the ability to understand the impact of technology.
- Goal 5:** The student will demonstrate the ability to use application programs.
- Goal 6:** The student will demonstrate the ability to access and store information.
- Goal 7:** The student will demonstrate the ability to apply computer science concepts.

**Objective A. The student will describe the components of computer graphics by:**

- 7.1 Defining the following computer graphics terminology:
  - Digital
  - Pixel
  - Resolution
  - Capture device
  - Editor applications
  - Conversion/Viewer utilities
  - File formats.
- 7.2 Describing the uses of computer graphics in the classroom and in society
- 7.3 Capturing images digitally using:
  - Digital cameras
  - Digital scanners
  - Digital camcorders

**Objective B. The student will use digital sound by:**

- 7.4 Describing the uses of digital sound in the classroom and in society
- 7.5 Capturing and playing digital sound tracks using a microphone and a sound card

- 7.6 Describing the hardware requirements of digital sound:
  - Memory Requirements:
    - RAM
    - ROM
    - Sound card
    - CPU requirement.
- 7.7 Describing the uses of digital sound in computer applications software:
  - Multimedia presentation programs
  - Desktop presentation programs
  - File formats.

**Objective C. The student will demonstrate knowledge in the use of computer graphics by:**

- 7.8 Describing the computer hardware options required for graphics including:
  - Memory Requirements:
    - ROM
    - RAM
    - Graphic
    - CPU requirement.
- 7.9 Describing the use of computer graphics in applications software including:
  - Desktop publishing programs
  - Desktop presentation programs
  - Multimedia presentation programs
  - File compression programs
  - File conversion programs.

**Objective D The student will use graphic editing software to edit digital pictures and video by:**

- 7.10 Opening images
- 7.11 Editing images using cropping, sharpening and animation
- 7.12 Saving images
- 7.13 Opening video
- 7.14 Editing video using trimming, splicing, speed and special effects
- 7.15 Saving video.

**Unit 8 Creating Web Sites with the HyperText Markup Language (HTML) 5 hours**

- Goal 2:** The student will demonstrate the ability to appreciate technology.
- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.

- Goal 4:** The student will demonstrate the ability to understand the impact of technology.
- Goal 5:** The student will demonstrate the ability to use application programs.
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- Goal 7:** The student will demonstrate the ability to apply computer science concepts.

**Objective A. The student will identify and understand the basic HTML codes by:**

- 8.1 Using a WWW browser and a text editor such as Notepad to display a web page's HTML code.
- 8.2 Modifying an existing web page by exchanging its text and graphics
- 8.3 Identifying the major parts of a web page including the:
  - HTML identifiers
  - Head
  - Title
  - Body
  - Markup tags.
- 8.4 Comparing written HTML code with a text editor and an HTML Editor.

**Objective B. The student will create a web page using HTML code by:**

- 8.5 Planning a web page using design criteria such as:
  - Keep pages simple and uncluttered
  - Use graphics, pictures, movies when appropriate
  - Limit the length of individual pages
  - Have each page contain a feedback address
  - Maintain a consistent format between pages
  - Have textual links flow naturally from the content.
- 8.6 Creating a web page containing examples of the following HTML elements:
  - Markup tags:
    - HTML
    - HEAD
    - TITLE
    - BODY
  - Headings
  - Paragraphs
  - Lists
  - Pre-formatted text (*optional*)
  - Extended quotations (*optional*)

Addresses  
Forced line breaks  
Horizontal rules.

- 8.7 Using an HTML authoring program to create a web page with the following elements:
- Fonts of varying sizes and colors
  - Centered text
  - Indented paragraphs
  - Bulleted items
  - Numbered items
  - Table containing text, hypertext links, and a graphic
  - New graphic or photograph
  - Resized graphic or photograph
  - Graphic with text wrapping to the right or left
  - Hypertext link from one part of the page to another
  - Hypertext link from one web page to another.

### **Unit 9 Creating a Web Site with *Dreamweaver* 23 hours**

- Goal 2:** The student will demonstrate the ability to appreciate technology.
- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
- Goal 4:** The student will demonstrate the ability to understand the impact of technology.
- Goal 5:** The student will demonstrate the ability to use application programs.
- Goal 6:** The student will demonstrate the ability to access and store information.
- Goal 7:** The student will demonstrate the ability to apply computer science concepts.

#### **Objective A: The student will identify and understand the basic features of the *Dreamweaver* environment by:**

- 9.1 Describing the function, benefits, and structure of *Dreamweaver* including:
- Property Inspector
  - Objects panel
  - Toolbars
  - Launcher and Mini-launcher
  - Document Window.
- 9.2 Defining a Web Site
- 9.3 Understanding Design Concepts such as:

Outlining the Steps Involved in Developing a Web Site  
Determining the Web Pages and Navigation Structure of a Web Site  
Determining the Content of a Web Site  
Understanding the Appropriateness, Placement, Consistency and Usability of Designing Web Page.

**Objective B: Students will develop a web site using *Dreamweaver* by:**

- 9.4 Inserting Tables and Adjusting Table Properties for Page Design
- 9.5 Inserting Graphics
- 9.6 Creating Hyperlinks
- 9.7 Understanding Typography, Paragraph Styles, Style Sheets and Color

**Objective C: Students will incorporate frames into their Web site by: (Optional)**

- 9.8 Defining Frames
- 9.9 Creating Frames
- 9.10 Saving Frames.

**Unit 10 Using Macromedia *Fireworks MX* to Enhance Web Content 15 hours**

- Goal 2:** The student will demonstrate the ability to appreciate technology.
- Goal 3:** The student will demonstrate the ability to use the computer as a problem-solving tool in all appropriate subject areas.
- Goal 4:** The student will demonstrate the ability to understand the impact of technology.
- Goal 5:** The student will demonstrate the ability to use application programs.
- Goal 6:** The student will demonstrate the ability to access and store information.
- Goal 7:** The student will demonstrate the ability to apply computer science concepts.

**Objective A: The student will identify and understand the basic features of Macromedia *Fireworks MX* by:**

- 10.1 Describing the Function, Benefits, and Structure of *Fireworks* including:
  - Tools Panel
  - Frames Panel
  - Workspace
  - Canvas
  - Property Inspector.
- 10.2 Understanding Graphic File Formats for Web Pages.

**Objective B: The student will use *Fireworks* to enhance Web page content by:**

- 10.3 Creating Vector Graphics including:
  - Drawing
  - Combining and Aligning
  - Working with Layers and Scaling Objects
  - Applying Effects.
- 10.4 Editing Bitmap Images including:
  - Bitmap Versus Vector Graphics
  - Setting Up a Document
  - Editing Bitmap Images.
- 10.5 Graphic Hyperlinks
  - Creating Buttons
  - Creating Rollovers
  - Establishing Links.
- 10.6 Optimizing and Exporting Images
- 10.7 Creating Animations with *Fireworks*.

**Unit 11 Using Macromedia *Flash MX* to Enhance Web Content 17 hours**

- Goal 2:** The student will demonstrate the ability to appreciate technology.
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- Goal 4:** The student will demonstrate the ability to understand the impact of technology.
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**Objective A: The student will identify and understand the basic features of Macromedia *Flash MX* by:**

- 11.1 Describing the Function, Benefits, and Structure of *Flash* Including:
  - Tools Panel
  - Timeline
  - Workspace
  - Stage
  - Property Inspector.
- 11.2 Explaining Vector Graphics and Images and Their Roles in Streaming Technology
- 11.3 Recognizing Various *Flash* File Formats.

**Objective B: The student will use *Flash* to enhance Web page content by:**

- 11.4 Creating *Flash* Buttons and *Flash* Text in *Dreamweaver*
- 11.5 Understanding and creating animation using:
  - Frame-by-frame
  - Shape Tweening
  - Motion Tweening
  - Layers.
- 11.6 Outlining the Process of Creating a *Flash* Movie
- 11.7 Organizing, Creating and Using *Flash* Movie Files in *Dreamweaver*
- 11.8 Optimizing a *Flash* Movie by Creating Symbols
- 11.9 Importing Sound Files and Video