

COMPUTER OPERATION/5: IC³ CERTIFICATION PREPARATION (90 Hours)

Course No.: 75-45-70

COMPETENCY CHECKLIST

Student Name _____

Teacher Name _____ School Site _____

Start Date _____ Completion Date _____ Certificate Date _____

Teacher Signature _____ Student Signature _____

(Signatures verify completion of course competencies)

I) **COMPUTING FUNDAMENTALS:**

A. **COMPUTER CONCEPTS** (2 hrs)

- _____ 1. Describe a computer
- _____ 2. History of the computer
- _____ 3. How computers are used
- _____ 4. Different types of computers
- _____ 5. Describe a computer system
- _____ 6. Data communication & computers
- _____ 7. Computers in our future

B. **DATA PROCESSING** (2 hrs)

- _____ 1. Computer systems concepts
- _____ 2. Computer system components
- _____ 3. Data representation

C. **DATA INPUT AND OUTPUT** (3 hrs)

- _____ 1. Input devices
- _____ 2. Output devices
- _____ 3. These devices connected to computer
- _____ 4. Storage devices
- _____ 5. Caring for removable storage media

D. **COMPUTER SOFTWARE** (3 hrs)

- _____ 1. Differences between hardware & software
- _____ 2. Types of software
- _____ 3. Computer operating system interfaces
- _____ 4. Computer operating systems
- _____ 5. How to start an application/program

E. **TECHNOLOGY AS A PROBLEM SOLVER** (1 hr)

- _____ 1. How technology can solve problems
- _____ 2. Concept of problem solving
- _____ 3. Problem-solving steps
- _____ 4. Problem solving with computers

F. **TECHNOLOGY AND THE CHANGING WORKPLACE AND SOCIETY** (1 hr)

- _____ 1. Changes in listed areas of our lives

G. **OPERATING SYSTEMS** (4 hrs)

- _____ 1. Windows operating systems

- _____ 2. How to start Windows
- _____ 3. Windows opening screen
- _____ 4. Moving around the desktop
- _____ 5. How to shutdown Windows

H. **WINDOWS** (4 hrs)

- _____ 1. Open Windows
- _____ 2. Identify parts of Windows
- _____ 3. Manipulating Windows
- _____ 4. How to work with Menus
- _____ 5. Working with dialog boxes
- _____ 6. Managing multiple Windows
- _____ 7. Close Windows

I. **THE HELP SYSTEM** (1 hr)

- _____ 1. Windows help and support system
- _____ 2. How to use the help and support center
- _____ 3. How to get help on an item
- _____ 4. How to use an operating system help system

J. **CUSTOMIZING THE DESKTOP** (1 hr)

- _____ 1. Changing display properties
- _____ 2. Customizing the background

K. **FILE MANAGEMENT** (4 hrs)

- _____ 1. File management concepts
- _____ 2. My Computer Window
- _____ 3. Set my Computer Options
- _____ 4. Access a disk drive
- _____ 5. View contents of a drive or folder

L. **DISKS, FOLDERS, AND FILES** (4 hrs)

- _____ 1. Formatting and labeling disks
- _____ 2. Managing disks
- _____ 3. Create a folder
- _____ 4. Naming folders and files
- _____ 5. Change order of files in display Window
- _____ 6. Displaying file properties
- _____ 7. Locating files and folders using Windows
- _____ 8. Copying and moving files

_____ 9. Run an application using 'run' command

M. SHORTCUTS & WINDOWS EXPLORER (2 hrs)

- _____ 1. Definition of a shortcut
- _____ 2. Creating a shortcut
- _____ 3. Deletion of a shortcut
- _____ 4. Adding a shortcut to the Quick Launch Bar
- _____ 5. Discuss Windows Explorer
- _____ 6. Setting Explorer options
- _____ 7. How to view contents of drive or folder

II) KEY APPLICATIONS:

A. INTRODUCTION TO APPLICATIONS (2 hrs)

- _____ 1. Start an application
- _____ 2. Some possible problems with files
- _____ 3. Using help with applications
- _____ 4. Using speech & handwriting recognition

B. INTRODUCTION TO WORD PROCESSING (3 hrs)

- _____ 1. Open an existing document
- _____ 2. Switch between document windows
- _____ 3. Enter text in a document
- _____ 4. Navigate through a document
- _____ 5. Use "Click and Type"
- _____ 6. Close document

C. EDITING DOCUMENTS (3 hrs)

- _____ 1. Create/save doc w/same/different name
- _____ 2. Display nonprinting characters
- _____ 3. Delete and replace characters
- _____ 4. How to use undo, redo, and repeat
- _____ 5. Select text
- _____ 6. Cut, copy, and move text
- _____ 7. Highlight text/apply font and text effects
- _____ 8. Insert a file
- _____ 9. Find and replace text and formats

D. FORMATTING DOCUMENTS (4 hrs)

- _____ 1. Create and edit a style
- _____ 2. Format fonts and points sizes
- _____ 3. Change line spacing and align paragraphs
- _____ 4. Change page orientation and margins
- _____ 5. View a document before printing
- _____ 6. Check spelling and grammar
- _____ 7. Format tabs
- _____ 8. Format indents
- _____ 9. Format bullets and numbering
- _____ 10. Page numbers & headers & footers
- _____ 11. Insert symbols and characters

E. WORKING WITH TABLES (4 hrs)

- _____ 1. Create a table
- _____ 2. Insert/delete rows and columns
- _____ 3. Adj. column width/row height/center table
- _____ 4. Edit text in a table

- _____ 5. Use the draw table and eraser tools
- _____ 6. Apply listed formatting techniques to table
- _____ 7. Format borders/shading; line style/weight
- _____ 8. Covert text to a table and AutoFormat

F. DESKTOP PUBLISHING (4 hrs)

- _____ 1. Format text in columns
- _____ 2. Insert a graphic
- _____ 3. Resize and position graphics
- _____ 4. Format borders and shading
- _____ 5. Create Word Art objects
- _____ 6. Use drawing tools
- _____ 7. Insert and format text boxes
- _____ 8. Use AutoShapes to create objects
- _____ 9. Templates
- _____ 10. Styles
- _____ 11. Themes
- _____ 12. AutoComplete and AutoText

G. WORKING WITH PRESENTATION GRAPHICS (4 hrs)

- _____ 1. Open and close existing presentation
- _____ 2. Parts of the PowerPoint Screen
- _____ 3. Navigate through a presentation
- _____ 4. Create and save a new presentation
- _____ 5. Apply a design template
- _____ 6. Add slides
- _____ 7. Add and edit text
- _____ 8. Delete, copy, and rearrange slides
- _____ 9. Use the slide finder
- _____ 10. How to use Help to change slide layout
- _____ 11. View the presentation

H. VISUAL ELEMENTS (4 hrs)

- _____ 1. Apply animation schemes and preview
- _____ 2. Create custom animations
- _____ 3. Format transitions
- _____ 4. Add animated ClipArt/sound/movie clips
- _____ 5. Use help to learn to print presentation

I. SPREADSHEETS (4 hrs)

- _____ 1. Parts of the spreadsheet screen
- _____ 2. Create & navigate through a worksheet
- _____ 3. Use AutoCorrect & AutoComplete features
- _____ 4. Change column width and row height
- _____ 5. Format the contents of a cell
- _____ 6. Merge cells
- _____ 7. Use the undo features
- _____ 8. AutoFormat the worksheet

J. WORKSHEETS (2 hrs)

- _____ 1. Insert and delete rows and columns
- _____ 2. Delete, copy, and move data
- _____ 3. Naming ranges
- _____ 4. Use AutoFill command to enter data
- _____ 5. Create multiple worksheets

- _____ 6. Hide/unhide columns and rows
- _____ 7. Freeze columns and rows
- _____ 8. Sort data
- _____ 9. Print a worksheet
- _____ 10. Options for viewing worksheet data

K. WORKSHEET FORMULAS (1 hr)

- _____ 1. Concept of formulas
- _____ 2. Create a formula
- _____ 3. Identify and correct formula errors
- _____ 4. Use the AutoSum feature
- _____ 5. Use AutoFill command to enter formulas
- _____ 6. Use absolute cell references
- _____ 7. Audit formulas on the worksheet

L. FUNCTIONS AND FORMULAS (2 hrs)

- _____ 1. Functions and formulas by categories
- _____ 2. Use the AVERAGE and SUM functions
- _____ 3. Use the COUNT function
- _____ 4. Use the MIN and MAX functions
- _____ 5. Use the NOW and ROUND functions
- _____ 6. Use logical functions
- _____ 7. Combining functions and formulas

M. COMMUNICATING INFORMATION WITH THE WORKSHEET (2 hrs)

- _____ 1. Apply conditional formats
- _____ 2. Insert a cell comment
- _____ 3. Insert images in a worksheet
- _____ 4. Resize and position images
- _____ 5. Create a chart
- _____ 6. Edit chart data, formats, and options
- _____ 7. Interpreting worksheet and chart data

N. DATABASES (2 hrs)

- _____ 1. Parts of the database application screen
- _____ 2. Purpose of the database objects
- _____ 3. Create a table
- _____ 4. Modify a table

O. EDITING RECORDS AND USING DATA FORMS (2 hrs)

- _____ 1. Edit records
- _____ 2. Add and delete records in database view
- _____ 3. Cut, copy, & paste data in database view
- _____ 4. Change the datasheet layout
- _____ 5. Use help to learn how to hide columns
- _____ 6. Create a data form
- _____ 7. Enter and edit data using a data form

P. ORDERING AND FINDING DATA, CREATING REPORTS AND MAILING LABELS (2 hrs)

- _____ 1. Sort data in database view
- _____ 2. Find and replace data in database view
- _____ 3. Create a query

- _____ 4. Create a report
- _____ 5. Create mailing labels

Q. ELECTRONIC TIME MANAGEMENT SYSTEM (2 hrs)

- _____ 1. Parts of the time management screen
- _____ 2. Schedule and manage appointments
- _____ 3. Create and manage contacts
- _____ 4. Organize and manage task
- _____ 5. Send and receive e-mail

III) LIVING ON LINE:

A. NETWORK CONCEPTS (2 hrs)

- _____ 1. Describe a network
- _____ 2. Benefits of a network
- _____ 3. List & describe types of networks
- _____ 4. Advantages/disadvantages: Network computing
- _____ 5. Communications media
- _____ 6. Communications hardware
- _____ 7. Communication software
- _____ 8. Different network topologies
- _____ 9. Network architecture
- _____ 10. Network protocols

B. INTERNET FUNCTIONS (1 hr)

- _____ 1. Origin of the Internet
- _____ 2. How to connect to the Internet
- _____ 3. How the Internet works
- _____ 4. Types of websites & elements of a website
- _____ 5. Features of Internet & their function

C. INTERNET APPLICATIONS (3 hrs)

- _____ 1. Describe a browser
- _____ 2. Understand browser terminology
- _____ 3. How to use browser to surf the Internet
- _____ 4. Use e-mail features

D. RESEARCH AND THE INTERNET (2 hrs)

- _____ 1. Define a search engine
- _____ 2. How search engines work
- _____ 3. The subject directory search approach
- _____ 4. Describe some search tips and tricks

E. EVALUATING ELECTRONIC INFORMATION (1 hr)

- _____ 1. Criteria for evaluating electronic info
- _____ 2. Software privacy
- _____ 3. Internet resources
- _____ 4. Rules of copyright

F. SECURITY AND PRIVACY ISSUES (2 hrs)

- _____ 1. Different types of computer crime
- _____ 2. Hackers
- _____ 3. Computer viruses
- _____ 4. Various security measures
- _____ 5. Computer-related laws
- _____ 6. Pass written exam