Course Outline

REVISED: JuLY/2002

Program: Adult Literacy/High School Diploma

Course of Study: Adult Basic Education

Course: Vocational ABE

Adult Education No.: 1:1006

53-04-50

Basic Computer Literacy

Credits: 5 **Hours:** 120

Prerequisites:
Minimum reading comprehension level of 4.0 as measured by the TABE Level D.

After a student has completed this course, he/she may not be allowed to re-enroll in the course.

Course Description:

This competency-based course outline offers instruction in the use of computers for personal use, office functions, educational purposes, Internet access; and provides instruction in basic computer skills with emphasis placed on

- understanding basic computer components;
- developing basic computer skills;
- developing basic word processing skills;
- using a database, spreadsheet and graphics;
- sending and receiving faxes and e-mail;
- accessing the Internet;
- purchasing a computer; and
- using educational and informational software.

Los Angeles Unified School District
Division of Adult and Career Education
Instructional and Couseling Services Unit
Adult Curriculum Office
adultinstruction.org

ACKNOWLEDGMENTS

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Appreciation is also extended to the original committee members and writers for the development of the original course outline: CLAUDINE AJETI, JACK BAUMAN, CONSTANCIO DAGUIMOL, KEN KAY, LUIS MUNDO, and CAROL VALENTINE.

Thanks to TOM CALDERON for editing and preparing this course outline as competency-based.

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COURSE OUTLINE COMPETENCY-BASED COMPONENTS

A course outline reflects the essential intent and content of the course described. Acceptable course outlines have six components. (*Education Code* Section 52506). Course outlines for all apportionment classes, including those in jails, state hospitals, and convalescent hospitals, contain the six required elements:

(EC 52504; 5CCR 10508 [b]; Adult Education Handbook for California [1977], Section 100)

Course Outline Components	Location
GOALS AND PURPOSES	Cover

The educational goals or purposes of every course are clearly stated and the class periods are devoted to instruction. The course should be broad enough in scope and should have sufficient educational worth to justify the expenditure of public funds.

The goals and purpose of a course are stated in the COURSE DESCRIPTION. Course descriptions state the major emphasis and content of a course, and are written to be understandable by a prospective student.

PERFORMANCE OBJECTIVES OR COMPETENCIES	pp. 7-16

Objectives should be delineated and described in terms of measurable results for the student and include the possible ways in which the objectives contribute to the student's acquisition of skills and competencies.

Performance Objectives are sequentially listed in the COMPETENCY-BASED COMPONENTS section of the course outline. Competency Areas are units of instruction based on related competencies. Competency Statements are competency area goals that together define the framework and purpose of a course. Competencies fall on a continuum between goals and performance objectives and denote the outcome of instruction.

Competency-based instruction tells students before instruction what skills or knowledge the students will demonstrate after instruction. Competency-based education provides instruction, which enables each student to attain individual goals as measured against prestated standards.

Competency-based instruction provides immediate and continual repetition and in competency-based education. The curriculum, instruction, and assessment share common characteristics based on clearly stated competencies. Curriculum, instruction and assessment in competency-based education are: explicit, known, agreed upon, integrated, performance-oriented, and adaptive.

INSTRUCTIONAL STRATEGIES	p. 20

Instructional techniques or methods could include laboratory techniques, lecture method, small-group discussion, grouping plans, and other strategies used in the classroom.

Instructional strategies for this course are listed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructional strategies and activities for a course should be selected so that the overall teaching approach takes into account the instructional standards of a particular program, i.e., English as a Second Language, Programs for Older Adults, Programs for Adults with Disabilities.

COURSE OUTLINE COMPETENCY-BASED COMPONENTS (continued)

Course Outline Components	Location
UNITS OF STUDY, WITH APPROXIMATE HOURS ALLOTTED FOR EACH UNIT	Cover
The approximate time devoted to each instructional unit within the course, as well as the total hours for the course, is indicated. The time in class is consistent with the needs of the student, and the length of the class should be that it ensures the student will learn at an optimum level.	pp. 7-16
Units of study, with approximate hours allotted for each unit are listed in the COMPETENCY AREA STATEMENT (S) of the course outline. The total hours of the course, including work-based learning hours (community classroom and cooperative vocational education) is listed on the cover of every CBE course outline. Each Competency Area listed within a CBE outline is assigned hours of instruction per unit.	
EVALUATION PROCEDURES	p. 20
The evaluation describes measurable evaluation criteria clearly within the reach of the student. The evaluation indicates anticipated improvement in performances as well as anticipated skills and competencies to be achieved.	
Evaluation procedures are detailed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructors monitor students' progress on a continuing basis, assessing students on attainment of objectives identified in the course outline through a variety of formal and informal tests (applied performance procedures, observations, simulations), paper and pencil exams, and standardized tests.	
REPETITION POLICY THAT PREVENTS PERPETUATION OF STUDENT ENROLLMENT	Cover
After a student has completed all the objectives of the course, he or she should not be allowed to re-enroll in the course. There is, therefore, a need for a statement about the conditions for possible repetition of a course to prevent perpetuation of students in a particular program for an indefinite period of time.	

CBE
Competency-Based Education

COMPETENCY-BASED COMPONENTS
for the Basic Computer Literacy Course

COMPETENCY AREAS AND STATEMENTS	MINIMAL COMPETENCIES
A. INTRODUCTION Discuss the history and importance of computers. (3 hours)	1. Demonstrate an understanding of classroom policies and procedures. 2. Identify course objectives and goals. 3. Discuss methods of instruction used in this class: a. individualized instruction b. small-group cooperative learning c. lecture and demonstration 4. Discuss the function of computers. 5. Discuss the history of computers. 6. Explain the impact of personal computers on society. 7. Discuss various uses for computers. 8. Demonstrate how to care for computers. COMPETENCIES Resources: Allocates Time/ Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Acquires and Evaluates Information/ Organizes Information FOUNDATION Basic Skills: Listening/ Speaking Thinking Skills: Decision Making Personal Qualities: Responsibility/ Sociability/ Self-Management
B. PERSONAL SAFETY Understand safety issues when operating a computer, including avoidance of physical hazards	1. Discuss and implement good safety practices, including the following: a. personal b. lab c. fire d. electrical e. equipment 2. Demonstrate correct typing technique and posture. 3. Demonstrate proper keyboard and monitor angle. 4. Discuss the benefits of periodic breaks to stretch and relax. 5. Demonstrate a variety of stretches involving the wrists, neck and shoulders. 6. Demonstrate the proper way to hold and move a mouse without gripping it hard or squeezing it.

(3 hours)	7. Identify the benefits of learning keyboard equivalent commands to mouse movements. COMPETENCIES Resources: Allocates Materials and Facilities Information: Acquires and Evaluates Information/ Organizes Information Systems: Understands Systems/ Monitors and Corrects Performance FOUNDATION Basic Skills: Listening/ Speaking Thinking Skills: Decision Making Personal Qualities: Self-Management
C. BASIC COMPUTER COMPONENTS Recognize basic computer hardware components, terminology and understand system of communication. (10 hours)	1. Identify the computer hardware system components: a. monitor b. central processing unit (CPU) c. keyboard d. mouse e. printer 2. Explain the function of each system component. 3. List the contents of the hard drive. 4. Discuss computer viruses. 5. Discuss ways to minimize the spread of computer viruses. 6. Discuss anti-viral software and its effectiveness. 7. Describe the purpose of a hard disk. 8. Discuss the following data storing devices: a. floppy disk b. hard disk c. Zip or Jazz disk d. CD-ROM 9. Compare available storage space, ease of use and method of initialization for each data storing devices. 10. Discuss proper handling and storage of data disks. 11. Demonstrate the proper sequence for powering-up and powering-down computers. 12. Discuss simple troubleshooting procedures and/or classroom procedures if a computer component fails to respond. COMPETENCIES Resources: Allocates Materials and Facilities Information: Acquires and Evaluates Information/ Organizes and Maintains Information/ Interprets and Communicates Information Systems: Understands Systems/ Monitors and Corrects Performance Technology: Selects Technology/ Maintains and Troubleshoots Equipment FOUNDATION Basic Skills: Listening/ Speaking Thinking Skills: Problem Solving/ Reasoning/ Seeing Things in the Mind's Eye Personal Qualities: Responsibility/ Self-Management

D. BASIC COMPUTER SKILLS Recognize basic computer operations using the mouse, keyboard, printer and desktop. (10 hours)	1. Demonstrate how to turn on and shut down the computer. 2. Describe the desktop screen. 3. Identify and describe an icon. 4. Point to an icon. 5. Click and drag on an icon. 6. Locate the menu bar. 7. Demonstrate the use of pull down menus. 8. Open an icon (document) using the file menu. 9. Double-click to open a document. 10. Describe a document window. 11. Use scroll bars to view all parts of window. 12. Use the mouse and window tile bar to move a window. 13. Resize window box. 14. Set the insertion point and enter text in an existing document. 15. Use the File menu to save a document. 16. Describe the keyboard shortcut to save a document. 17. Create and name a folder. 18. Save document to folder. 19. Explain the importance of saving work frequently. 20. Print a document. 21. Locate trash on desktop. 22. Drag a folder from the trash. 23. Demonstrate the use of Help menu. 24. Initialize floppy and zip disks. 25. Create and name a folder on floppy and zip disks. 26. Save a document into a folder on floppy and zip disks. 27. Lock contents of floppy and zip disks. 28. Eject a floppy and zip disks. 29. Explain proper care of floppy and zip disks. 30. Explain safe handling of floppy and zip disks in disk drives. 31. Describe storage procedures to backup files and keep the hard drive and desktop well organized. COMPETENCIES Resources: Allocates Materials and Facilities Information: Acquires and Evaluates Information/ Organizes and Maintains Information/ Interprets and Communicates Information Systems: Understands Systems/ Monitors and Corrects Performance Technology: Selects Technology/ Maintains and Troubleshoots Equipment FOUNDATION Basic Skills: Listening/ Speaking Thinking Skills: Problem Solving/ Reasoning/ Seeing Things in the Mind's Eye Personal Qualities: Responsibility/ Self-Management

E. BASIC KEYBOARDING SKILLS Learn basic computer keyboarding (6 hours)	1. Demonstrate proper posture when keyboarding. 2. Use proper finger placement. 3. Use proper keyboarding techniques: sit correctly feet flat on the floor, wrists low, fingers curved, use proper fingering, strike quickly, and use the touch system. 4. Locate home row, space bar, and return keys. 5. Practice smooth reach to return key. 6. Strike space bar with a quick down and in motion. 7. Shift smoothly for capitals. 8. Operate the backspacer. 9. Change the margins. 10. Use word-wrap on a computer. 11. Operate the tabulator key. 12. Delete and set tabs. COMPETENCIES Resources: Allocates Time/ Allocates Materials and Facilities Information: Organizes Information and Maintains Information Systems: Monitors and Corrects Performance Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Problem Solving/ Reasoning Personal Qualities: Self-Management
F. BASIC WORD PROCESSING Demonstrate basic operation of word processing software.	1. Discuss advantages of using word processors over handwriting or using a typewriter. 2. Discuss the differences of generating text with a word processing program and a typewriter. 3. Differentiate among various word processing programs. 4. Set margins, justification, and spacing for a document. 5. Write a 50-100 word original paragraph utilizing prewriting, writing, proofreading, and editing skills. 6. Open a word processing program. 6. Use cut, copy and paste commands. 7. Change the format of a selection: a. font style b. font size c. text color d. tabs e. right, center, left and justified alignment f. bold 8. Describe uses of the menu bar and ruler. 9. Use the spell check and thesaurus features. 10. Discuss the limitations of the spell check and thesaurus features. 11. Print out a completed document. 12. Save a document using correct file name to a data disk.

(15 hours)	COMPETENCIES Resources: Allocates Time/ Allocates Materials and Facilities Information: Acquires and Evaluates Information/ Organizes Information/ Interprets and Communicates Information/ Uses Computers to Process Information Systems: Understands Systems/ Monitors and Corrects Performance Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management
G. DATABASE Demonstrate basic operation and use of database. (10 hours)	1. Define a field and name it. 2. Identify a field entry. 3. Identify a record. 4. Switch between list view (records in a table, data view (an individual record), and design view (for arranging, formatting and altering fields). 5. Switch among records. 6. Enter information in fields. 7. Sort records by one field. 8. Sort records by two or more fields. 9. Select certain records for display. 10. Create a database report using selected records. 11. Customize a database layout. 12. Develop a database to create mailing labels. 13. Print mailing labels. 14. Describe how a mailing label database can be used for producing form letters. COMPETENCIES Resources: Allocates Materials and Facilities Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management

H. SPREADSHEET Demonstrate basic use of spreadsheet software. (10 hours)	1. Define a spreadsheet and indicate how it is used. 2. Define a cell and name it. 3. Identify a cell entry. 4. Distinguish between a workbook and a worksheet. 5. Enter a simple function into a spreadsheet. 6. Enter and edit data. 7. Insert and delete information from a cell. 8. Change row height and column width 9. Perform calculations with the spreadsheet. 10. Create a simple graph or chart from spreadsheet data. 11. Print the spreadsheet with different layouts. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management
I. GRAPHICS Demonstrate basic use of graphics software. (10 hours)	1. Describe various graphics software, including paint, draw, and image capturing and modification applications. 2. Describe the function of a scanner to digitize images. 3. Identify and explain the function of common graphic tools used within graphic application. 4. Copy and paste a graphic into a document. 5. Modify a graphic to fit the needs of the document such as a chart or a flyer. 6. Create an original graphic (chart, drawing, etc.) to use in a document. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management

J. E-MAIL (ELECTRONIC MAIL) Demonstrate basic use of e-mail software. (10 hours)	1. Describe e-mail and the process by which it is received and downloaded from a server. 2. Describe and use e-mail from a server. 3. Use e-mail to send a message. 4. Create a document and send it as an attachment. 5. Develop a list of nicknames that can be used with an e-mail application. 6. Locate where to insert the SMTP server information. 7. Locate where to insert the POP server information. 8. Describe how to subscribe with a list server and how to stop the subscription. 9. Discuss the worldwide availability of e-mail, on-line providers and related costs. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management
K. BROWSERS Demonstrate use of the Internet browser. (5 hours)	1. Describe use of browsers and their ability to display web pages. 2. Use the browser to “surf” web pages of interest. 3. Describe search engines and their abilities to find sites of interest. 4. Save and print text and images from the web to a computer. 5. Save applications or helper programs to a computer. 6. Gather images and text and paste them into a word processing application. 7. Identify plug-ins that are used with browsers. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management

L. INTERNET Demonstrate how to connect to and use of the Internet. (5 hours)	1. Describe the Internet and how it is used. 2. Compare and contrast the advantages and disadvantages of accessing the Internet through an educational institution's access line and subscribing to an on-line service. 3. Describe "Acceptable Use Policy." 4. Describe methods for on-line safety, including prohibiting children's access to inappropriate materials. 5. Describe dial-up modems and their scripts for connecting an Internet Service Provider (ISP). 6. Use dial-up modems. 7. Describe various speeds a computer can use to connect to the Internet. 8. Differentiate among various ports for connecting a modem to a computer. 9. Log on to the Internet. 10. Access and bookmark various Internet sites of interest. 11. Download information or software from the Internet and save it on the computer. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management
M. FAXING Demonstrate how to send and receive documents. (5 hours)	1. Describe faxing and how it is used via the fax machine and computer. 2. Prepare to send and receive faxes by setting the necessary options on the computer. 3. Send and receive a fax on the computer and fax machine. 4. Perform various fax management functions such as printing, storing and deleting faxes. 5. Convert a fax file into a word processing document or graphic. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management

H. CONSUMER EDUCATION Understand consumer choices in personal computers and software; evaluate options according to budget and personal requirements. (3 hours)	1. Complete a needs assessment with regard to personal computing needs. 2. Identify hardware components and software needs. 3. Identify computer purchasing information sources. 4. Compare prices, features, technical support, warrantees, etc. for the following sources: a. retail chain(s) b. on-line/mail order distributor(s) 4. Compare buying a computer "package" as opposed to components and individually priced software. 5. Compare a laptop computer to a desktop computer with regard to price. 6. Estimate a personal budget for the purchase of a computer (or computer upgrade). 7. Produce a "purchase order" that lists the price and model number of a computer (with peripherals) and prices and titles of software within estimated budget. COMPETENCIES Resources: Allocates Time/ Allocates Money/ Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Acquires and Evaluates Information/ Organizes Information/ Interprets and Communicates Information Systems: Understands Systems/ Monitors and Corrects Performance Technology: Selects Technology/ Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing/ Arithmetic/Mathematics/ Listening/ Speaking Thinking Skills: Decision Making/ Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management
I. EDUCATIONAL SOFTWARE AND RELATED INFORMATION SOURCES Examine and use educational software to improve academic skills, critical thinking, and problem solving skills.	1. Identify educational software programs for improving basic skills in reading, language arts and mathematics. 2. Identify educational software programs for assisting in language acquisition. 3. Identify educational software available on the Internet. 4. Maintain a journal that evaluates and summarizes the content of software programs designed to improve academic skills. 5. Identify and evaluate various self-help textbooks and manuals designed for the beginning computer user. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Selects Technology/ Applies Technology to Task

(10 hours)	FOUNDATION Basic Skills: Reading/ Writing/ Listening/ Speaking Thinking Skills: Decision Making/ Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management
J. APPLICATIONS Use computer skills at home, in the community and at work to locate, interpret and use information. (5 hours)	1. Use the Internet and reference materials to prepare a project. 2. Use the computer to prepare a letter, essay, and/or report. 3. Use the Internet and reference materials to help a child with schoolwork. 4. Use software programs (word processing, spreadsheet, database) for personal, academic, vocational and social growth. COMPETENCIES Resources: Allocates Materials and Facilities Interpersonal: Participates as Member of a Team Information: Interprets and Communicates Information/ Uses Computers to Process Information Technology: Applies Technology to Task FOUNDATION Basic Skills: Reading/ Writing Thinking Skills: Creative Thinking/ Problem Solving/ Reasoning Personal Qualities: Self-Management

DEFINITIONS of SCANS COMPETENCIES and FOUNDATION SKILLS

Resources

- Allocates Time: Selects goal-related tasks; prioritizes tasks; schedules work to meet deadlines.
- Allocates Money: Uses or prepares budgets, forecasts costs, keeps records to track budget performance.
- Allocates Material and Facility Resources: Acquires, stores, and distributes materials, supplies, equipment, parts, or products.
- Allocates Human Resources: Assesses knowledge and skills and distributes work accordingly; evaluates performance; provides feedback.

Information

- Acquires and Evaluates Information: Identifies need for data, acquires data or creates data sources, and evaluates relevance of information.
- Organizes and Maintains Information: Organizes, processes, and maintains written or computerized records; sorts, classifies or reformats information.
- Interprets and Communicates Information: Selects and analyzes information; communicates the results to others using oral, written, graphic, or multi-media.
- Uses Computers to Process Information: Uses computers to acquire, analyze, organize, and communicate information, including entering, modifying, storing, retrieving, and verifying data.

Interpersonal

- Participates as a Member of a Team: Works cooperatively with others; contributes ideas, suggestions and effort; encourages team members; listens and responds to contributions of others; resolves differences for the benefit of the team; takes responsibility for achieving goals and for doing own share of the work.
- Teaches Others: Helps others learn by coaching or other means; conveys job information to others; provides constructive feedback.
- Serves Clients/Customers: Works and communicates with clients and customers to satisfy their expectations; listens actively to determine needs; communicates in a positive manner; obtains additional resources to satisfy client or customer needs.
- Exercises Leadership: Communicates to justify a position; encourages, persuades or motivates others; establishes credibility through competence and integrity; takes minority viewpoints into consideration.
- Negotiates to Arrive at a Decision: Works toward agreement; clarifies problems and resolves conflicts; proposes and examines options; sets realistic goals; resolves divergent interests.
- Works with Cultural Diversity: Works well with men and women and with a variety of ethnic and social groups; respects the rights of others; bases impressions on individual performance, not on stereotypes.

Systems

- Understands Systems: Knows how social, organizational, and technological systems work and operates effectively within them; knows who to ask for information and how to get resources.
- Monitors and Corrects Performance: Monitors how procedures are working; predicts trends; diagnoses problems; takes action to maintain system performance.
- Improves and Designs Systems: Makes suggestions for improving products or services; recommends alternatives; responsibly challenges the status quo.

DEFINITIONS of SCANS COMPETENCIES and FOUNDATION SKILLS (continued)

Technology

- Selects Technology: Chooses procedures, equipment, or computer programs to produce desired results.
- Applies Technology to Task: Understands purpose and procedures for setting up and operating machines, including computers and their programs.
- Maintains and Troubleshoots Technology: Prevents, identifies, or solves problems in machines, computers, and other technologies.

Definitions of SCANS Foundation Skills

Basic Skills

- Reading: Locates, understands, and interprets written information in prose and documents – including manuals, graphs, and schedules – to perform tasks.
- Writing: Communicates thoughts, ideas, information, and messages in writing; records information completely and accurately; checks, edits, and revises written material.
- Arithmetic: Performs computations; uses numerical concepts in practical situations; uses tables, graphs, and diagrams to obtain or convey numerical information.
- Mathematics: Approaches practical problems by choosing from a variety of mathematical techniques.
- Listening: Receives, attends to, interprets, and responds to verbal and non-verbal messages.
- Speaking: Organizes ideas and communicates oral messages appropriately in conversation, discussion, and group presentations; asks questions when needed.

Thinking Skills

- Creative Thinking: Uses imagination; combines ideas or information in new ways; reshapes goals in ways that that reveal new possibilities.
- Decision Making: Specifies goals and constraints, generates alternatives, considers risks, evaluates and chooses best alternative.
- Problem Solving: Recognizes that a problem exists, devises and implements a plan to resolve it, evaluates and monitors progress, and revises plan as needed.
- Seeing Things in the Mind's Eye: Organizes and processes symbols, pictures, graphs; visualizes outcomes from blueprints, diagrams, flow charts, recipes, etc.
- Knowing How to Learn: Can use learning techniques to apply and adapt new knowledge and skills in both familiar and changing situations.
- Reasoning: Uses underlying principles to solve problems; uses logic to draw conclusions.

Personal Qualities

- Responsibility: Works hard to be excellent; sets high standards of attendance, punctuality, enthusiasm, and optimism in approaching tasks.
- Self-Esteem: Has a positive view of self; knows own skills and abilities; is aware of impact on others.
- Social: Demonstrates friendliness, adaptability, empathy and politeness; relates well to others; asserts self appropriately; takes an interest in others.
- Self-Management: Assesses own knowledge, skills, and abilities accurately; sets personal goals; responds to feedback unemotionally; is a "self-starter."
- Integrity/Honesty: Can be trusted; recognizes personal and societal values; chooses ethical courses of action.

SUGGESTED INSTRUCTIONAL MATERIALS and OTHER RESOURCES

TEXTBOOKS

Wray, Paul. *Computer Literacy with Microsoft Office 2000*. D.D.C. Publishing. ISBN: 1-56243-858-1.

Wray, Paul. *Learning Computer Literacy* (Generic for PC and Mac). DDC Publishing. ISBN: 1-56243-811-5. 2001.

Supplemental Resources

Barksdale, Karl, Michael Rutter and Ryan Teeter. *Internet Basics*. Thomson Learning, ISBN: 0-619-05905-2. 2002.

Bobola, Daniel T. and Dan Bobola. *The Complete Idiot's Guide to Microsoft Word 2000*. MacMillan Publishing Company. ISBN: 078971860X. 1999.

Bonomo, Perry, Daniel Seidler and John Piser. *ErgAerobics: Why Does Working @ My Computer Hurt So Much?* Mass Market Paperback. ISBN: 0966409000. 1998.

Kraynak, Joe. *The Complete Idiot's Guide to PC's* (Complete Idiot's Guide Series). Alpha Books. ISBN: 0789716313. 1998

Linden, Paul. *Comfort at Your Computer: Body Awareness Training for Pain-Free Computer Use*. North Atlantic Books. ISBN: 1556433220. 2000.

Landau, Ted. *Sad Macs, Bomb and Other Disasters*. Peachpit Press. ISBN: 020169963X. 2000.

McFedries, Paul. *The Complete Idiot's Guide to Windows 98* (Complete Idiot's Guide Series). Que Education and Training. ISBN: 0789714930. 1998.

Morrison, Connie. *Microsoft Office XP Basics*. Thomson Learning. ISBN: 0-619-05908-7. 2002.

SOFTWARE

Discover Intensive Phonics for Yourself. HEC Software, Inc.

EDL Learning 100 software for *Language Clues* and *Reading Strategies*. Steck Vaughn.

Shelly, Gary and Thomas Cashman. *Learn By Series Microsoft and Word 2000 Introductory Concepts and Techniques*. CD-ROM. Thompson Learning. 0-7895-6103-4.

RESOURCE PERSONS

Subject area supervisor

Adult Basic Studies Program teacher trainers

Information Technology Division (ITD), Los Angeles Unified School District

TEACHING STRATEGIES and EVALUATION

METHODS AND PROCEDURES

A. Demonstration and discussion

B. Hands-on laboratory practice

C. Projects incorporating integrated computer applications

D. Whole group and small group instruction and activities

E. Individualized instruction

F. Cooperative learning strategies

G. Multimodal and multimedia presentations

EVALUATION

A. Oral, written and manipulative tests

B. Individual and group projects based on the Competency Areas of this course outline

C. Teacher observation and evaluation

D. Student self-evaluation

GLOSSARY of COMMON COMPUTER TERMS

ASCII - pronounced "ASK-ee," the standard seven-bit code developed in 1965 by Robert W. Bemer to define text characters in a compatible format across different types of data processors, which enables computers and programs to exchange information.

Bit - **B**inary digit - represents a single unit (either 0 or 1) of data. It is the smallest unit in computer information.

Byte - group of 8 bits that the computer translates as either a letter or operation.

Browser - software that allows a user to search through information on a server. The term usually refers to a universal client application, such as Netscape Navigator or MS Internet Explorer that interprets HTML documents.

CPU - **Ce**ntral **P**rocessing **U**nit - the brain of a computer system in which data is manipulated and calculations take place. It consists of a single microprocessor chip.

CD - Compact disc-digital audio - format used for high-fidelity music.

CD-ROM - **C**ompact **D**isc-**R**ead-**O**nly **M**emory - a 4.75-inch disc on which optical memory storage is encoded. CD-ROMs hold about 650 megabytes (MB) of data.

CD-R - **C**ompact **D**isc-**R**ecordable - permits a CD recorder to write CD-DA, CD-ROM, CD-ROM XA, and CD-i block structures to a blank CD-ROM disc.

CD-WR - **C**ompact **D**isc-**R**ewritable - a recordable CD-ROM that may be written over many times. It uses a different medium from a CD-R, which may be recorded only once.

DOS – **D**isk **O**perating **S**ystem - a computing environment designed for use with a floppy or hard disk. It permits data to be transferred between a computer's memory and disk storage. The Microsoft DOS (MS-DOS) designed for the IBM PC and compatibles.

E-mail - **E**lectronic **M**ail - messages transmitted between computer users through networks or via modems and telephone lines.

Ethernet - coaxial cable local area network

GIF - **G**raphics **I**nterchange **F**ormat - a format used for displaying bitmap images on World Wide Web pages, usually called a "gif" because .gif is the filename extension. These files use lossless compression and can have 256 colors. JPEG and GIF are commonly used for images on the Web; JPEG is considered best for photos and GIF for other graphic images.

Gigabytes - one billion 8-bit bytes, or 1, 073, 741, 824 bytes.

HTML - **H**yper**t**ext **M**arkup **L**anguage - used to exchange documents on the web. A set of commands for marking a document so that it can be read by a web browser, such as Netscape Navigator. All home pages on the World Wide Web are HTML documents.

Internet - **I**nter-**N**etworking - allows computers all over the world to communicate with each other. A packet-switched network developed in 1969 by the Advanced Research Projects Agency (ARPA) of the Department of Defense to give researchers access to databases and computers. Internet activities include sending messages over e-mail, conducting group discussions over Usenet, accessing databases, and "surfing" World Wide Web documents, or pages, that are linked to one another.

KB - kilobytes - 1024 bytes.

KHz - one thousand cycles per second.

Link - connection between two pieces of data. An example of a link is the relationship between a hypertext anchor and the URL to which it refers.

MB - megabytes-one million 8-bit bytes, or more precisely 1, 048, 576 bytes.

MHz - one million cycles per second.

Microprocessor - any integrated circuit containing the CPU of a small computer.

Modem - contraction of modulator/demodulator, a device that converts digital data into audio signals for transmission over telephone lines and that translates the audio signals back into data on reception.

Motherboard - The main printed circuit board in a computer, with sockets for additional boards or add-on cards. In a microcomputer the motherboard contains the bus, the microprocessor, and the chips used for interfacing with basic peripherals such as the keyboard, the display, the serial and parallel ports, and the mouse.

PDF - **P**ortable **D**ocument **F**ormat - document type created by Adobe Acrobat that almost any type of computer can access. PDF Writer converts existing graphics and text files into the .pdf format. PDF provides a cross-platform method to transfer information. If Acrobat Reader, a freely distributed program, has been installed on a computer, it can effectively read and manipulate this universal document type.

Peripherals - a device that is controlled by a computer but that is a separate unit interfaced with the computer, such as a printer, a scanner, or an external modem.

Plug-ins - a program that extends the utility of another program. Plug-ins for Netscape Navigator allow enhanced media types such as RealMedia to be employed.

POP – **P**ost **O**ffice **P**rotocol - the protocol that allows individual computers to retrieve electronic mail from a server.

Protocol - a standard procedure or a set of rules with which software and hardware systems must comply in order to be compatible.

RAM - **R**andom **A**ccess **M**emory - a memory storage chip installed in a computer. RAM holds information that a microprocessor can access rapidly. Generally, the operating system and the application programs are loaded into RAM. This part of a computer's memory can read (find and display) and write (record) information, and the user can update or amend it.

ROM - **R**ead-**O**nly **M**emory - a computer storage medium that allows the user to recall and use information (read) but not to record or amend it (write).

SCSI - **S**mall **C**omputer **S**ystem **I**nterface - pronounced "SKUH-zee," an independent standard for a system-level interface between computers and such peripherals as hard disks, CD-ROMs, printers, and scanners. SCSI can connect a number of devices to a single controller on the computer's bus. All SCSI chains require termination at both ends, and devices on a SCSI chain must be set to different ID numbers.

Search engine - database front end that allows a user to seek information on the Internet by keyword. Search engines may look for titles of documents, URLs, headers, or text.

SMTP - **S**imple **M**ail **T**ransfer **P**rotocol - server-to-server protocol for delivering electronic mail. The standard protocol used on the Internet; also used on other TCP/IP networks.

TCP/IP - **T**ransmission **C**ontrol **P**rotocol/**I**nternet **P**rotocol - de facto standard Ethernet protocols for Internet communications. The Defense Advanced Research Projects Agency (DARPA) developed TCP for internetworking. It encompasses both network layer and transport layer protocols.

Viruses - self-replicating, destructive programs.

WWW – **W**orld **W**ide **W**eb - A hypermedia-based system for browsing Internet sites. It is named the Web because it is made of many sites linked together; users can travel from one site to another by clicking on hyperlinks. Text, graphics, sound, and video can all be accessed with browsers like Mosaic, Netscape, or Internet Explorer. The Web can also be accessed with text-only browsers like Lynx.

Zip drive - cartridge drive developed by Iomega Corporation that reads and writes to removable 100-megabyte (MB) hard disks.