These course outlines and instructor's guides were developed for a workplace literacy project conducted cooperatively through the Minnesota Teamsters Service Bureau and Northeast Metro Technical College. They are part of the job-specific curriculum for commercial truck drivers developed during the project. The beginning computer course introduces IBM computers and familiarizes students with the Disk Operating System (DOS), then presents an overview of computer applications in word processing, electronic spreadsheets, and database management. The second computer course is designed to continue computer exploration in greater depth; it is meant to familiarize students with the top 20 DOS commands. The word processing course is a three-session workshop that teaches students to use the PC-TYPE program. Another three-session course teaches the use of PC-CALC electronic spreadsheets. The last course, calculator math, is correlated with a required textbook ("Math Skills that Work"). Topics covered the following: decimals, fractions, percentages, interest rates, estimating, English and metric measurements, and analyzing data using charts and graphs. Each course guide contains some or all of the following: performance objectives, text references, suggested handouts, length of time, topic outline with tips and hints, pre/posttests, and worksheets. Course evaluation forms also are included in each packet. (KC)
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Workplace Literacy Project

Computer Training

Minnesota Teamsters Service Bureau
Northeast Metro Technical College

1992
WORKPLACE LITERACY PROJECT

COMPUTER TRAINING

WORKPLACE LITERACY RESOURCE CENTER
1-800-832-4916

MINNESOTA TEAMSTERS SERVICE BUREAU
NORTHEAST METRO TECHNICAL COLLEGE

Introduction to Computers
WORKPLACE LITERACY PROJECT

COMMERCIAL DRIVERS LICENSE

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1992
INTRODUCTION TO COMPUTERS

Course Description

This course is designed for the individual who needs an introductory course in computer operations. The series of sessions will introduce the IBM and compatible computers by exploring the hardware and software of the computer and how they work together.

It is designed to familiarize the student with the hardware components of a Personal Computer. DOS (Disk Operating System) is explored as well as the directory and file structure used by DOS.

Following the introduction to computers, the three most common computer applications used in business and home computing are studied. Word Processing, Electronic Spreadsheets and Database Management will be introduced.

The word processing segment of the course allows students to practice many of the features of modern word processing, including copy, move, character enhancements and saving a file.

The electronic spreadsheet segment provides practice in creating a home budget using the PC-CALC program.

The database management segment provides practice in accessing a database, creating the format for and entering data into a database.
INTRODUCTION TO COMPUTERS

Performance Objectives

Upon completion of this course, the student will be able to:

Identify and describe the major PC components.

Performance will be satisfactory if the student will define the major components of a PC completing 7 of 8 descriptions.

List the disk and diskette types and capacities.

Performance will be satisfactory if the student can describe diskette capacities according to diskette size.

Describe proper diskette handling techniques and procedures.

Performance will be satisfactory if the student can explain at least five cautions with respect to handling diskettes.

Describe the basic software categories used with the IBM and compatible computers.

Performance will be satisfactory if the student can list the three basic software categories.

Describe the Disk Operating System and its function.

Performance will be satisfactory if the student can describe the four basic functions of the Disk Operating System.

Draw and explain the directory/file structure used with an IBM or compatible computer.

Performance will be satisfactory if the student can draw the directory structure used with the Disk Operating System.

Enter basic DOS commands using an IBM or compatible computer.

Performance will be satisfactory if the student can appropriately use the following basic DOS commands:
TIME, DATE, DIR, CD, CHKDSK, FORMAT
INTRODUCTION TO COMPUTERS
Performance Objectives

Upon completion of this course, the student will be able to:

Access and start the PCTYPE Word Processing program.

Performance will be satisfactory if the student can make appropriate entries on the keyboard to access and start the PCWP program.

Retrieve a file stored on a diskette using the GET command.

Performance will be satisfactory if the student can make retrieve a file stored on the Student Data Diskette.

Define text entry and cursor movement keys used in the PCTYPE program.

Performance will be satisfactory if the student can enter data and demonstrate use of the cursor movement keys.

Define the Function Keys displayed on the Message Line of the PCTYPR screen.

Performance will be satisfactory if the student can enter data and demonstrate use of the cursor movement keys.

Define the purpose and use of the PCTYPE Column Ruler

Performance will be satisfactory if the student can change Margins, Tabs & Indent symbols.

Save PCTYPE file to the student data diskette.

Performance will be satisfactory if the student can save a file to the student data diskette.
INTRODUCTION TO COMPUTERS

Performance Objectives

Upon completion of this course, the student will be able to:

Access and start PC-CALC, the Spread Sheet program.

Performance will be satisfactory if the student can make appropriate entries on the keyboard to access and start the PC-CALC program.

Load spreadsheet data using a student data diskette.

Performance will be satisfactory if the student can retrieve spreadsheet data from student data diskette.

Enter data, text and formulas into cells to accomplish a simple spreadsheet application.

Performance will be satisfactory if the student can enter spreadsheet data for home finances into the PC-CALC program.

Save spreadsheet data using a student data diskette.

Performance will be satisfactory if the student can save the spreadsheet data for home finances onto a student data diskette.
INTRODUCTION TO COMPUTERS
Performance Objectives

Upon completion of this course, the student will be able to:

Access and start PC-FILE, the Data Base program.

Performance will be satisfactory if the student can make appropriate entries on the keyboard to access and start the PC-FILE program.

Load database data using a student data diskette and define the data base components.

Performance will be satisfactory if the student can retrieve data base data from a student data diskette.

Enter data, and create a simple data base file.

Performance will be satisfactory if the student can create a data base format and enter data for the data base using the PC-FILE program.

Save data base data using a student data diskette.

Performance will be satisfactory if the student can save the data base data onto a student data diskette.
INTRODUCTION TO COMPUTERS
Instructor Guide

This document is a Guide to be used by the instructor in teaching the INTRODUCTION TO COMPUTERS Course. It also provides a means for updating the course. The TIPS & HINTS column in the outline segment of each section contains space for adding comments each time the course is run. This provides a way to pass on ideas and insight to other instructors that may teach the course.

The Instructor Guide is structured in sequence with the objectives. It is organized into twenty-one (21) sections, each covering one objective.

The reference text for the course, Application Software for the IBM PC. Supplemental handouts are included to provide information and skill practice for the different features introduced.

The OUTLINE portion of the Instructor Guide provides direction and timing for each session.

The instructor should facilitate the sequence and timing of the session and serve as an advisor should there be any questions.

Each section is divided into the following segments.

<table>
<thead>
<tr>
<th>OBJECTIVE:</th>
<th>Performance objective listed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCE:</td>
<td>Application Software for the IBM PC.</td>
</tr>
<tr>
<td>HANDOUT:</td>
<td>Handout(s) to be used in each lesson.</td>
</tr>
<tr>
<td>TIMING:</td>
<td>The approximate time required to accomplish the objective. These times will vary, a range of time for each objective is indicated. The times that are indicated reflect the time allocated for the particular lesson. Extra time should be allowed for hands-on practice.</td>
</tr>
<tr>
<td>OUTLINE:</td>
<td>Provides the direction and timing for each objective. The outline sheet is in a split-sheet format, with the TOPICS listed in the left column and the TIPS &amp; HINTS in the right column. These TIPS &amp; HINTS are comments relative to this lesson that may be helpful to you the instructor. This portion of the guide should be updated each time the session is run. These notes are a great help to the instructor and will assist in making the guide most useful.</td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Introductions: Self, Students, Course and Text

HANDOUT: Registration forms
          Course Syllabus
          Pre / Post Quiz

TIMING: 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration:</td>
<td>Distribute registration forms as required.</td>
</tr>
<tr>
<td>Introductions:</td>
<td>Introduce yourself and have students introduce themselves</td>
</tr>
<tr>
<td></td>
<td>Give them some guidance to help them - such as:</td>
</tr>
<tr>
<td></td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td>Place of work</td>
</tr>
<tr>
<td></td>
<td>Computer background</td>
</tr>
<tr>
<td></td>
<td>Why they are taking Intro to Computers</td>
</tr>
<tr>
<td>Introduce course:</td>
<td>Distribute the course syllabus, review each sessions content.</td>
</tr>
<tr>
<td></td>
<td>Ask for questions and concerns about the course or schedule.</td>
</tr>
<tr>
<td></td>
<td>Place the responsibility to learn on the students</td>
</tr>
<tr>
<td></td>
<td>Review the comments at the bottom of the syllabus.</td>
</tr>
<tr>
<td></td>
<td>Distribute the pre-course quiz - explain that the same quiz will be given</td>
</tr>
<tr>
<td></td>
<td>at the end of the course.</td>
</tr>
<tr>
<td></td>
<td>Show or distribute the book that will be used - review it briefly chapter</td>
</tr>
</tbody>
</table>

11
REGISTRATION FORM
SKILL ENHANCEMENT TRAINING PROGRAM
Northeast Metro Technical College
in cooperation with
Minnesota Teamster Service Bureau

Course: _______________________

1. Start Date ___________ 2. End Date ___________

3. Location: Northeast Metro Technical College ____________
   Other ______________________________________________________________________

4. Name ______________________
   Last ________________________ First ______________________ Middle Initial __________

5. Address ______________________
   City ________________________ State __________ Zip __________

6. Telephone: Home ( ) Work ( )

7. Employer ______________________ Member of Teamster Local # ______

8. Current Job Title ______________________

9. Sex __Male ___Female 10. Age category: ___ 20-25
   ____ 26-30
   ____ 31-35
   ____ 36-45
   ____ 46+

11. Ethnic Origin: __White ___ Native American
    ____ Black ___ Asian

12. What is your primary spoken language? ___ English ___ Spanish ___ Other

13. Do you have a high school diploma? ___Yes ___No GED? ___Yes ___No

14. Have you had any post high school training? ___Yes ___No
   If yes, what type?

   TYPE __________ DEGREE/MAJOR __________
   ___ Community College ______________________
   ___ Technical College ______________________
   ___ Four-Year College ______________________
   ___ Military ______________________
   ___ Other: ______________________

15. How did you find out about the course? ______________________

Northeast Metro Technical College complies with state and federal laws prohibiting discrimination against
students because of age, race, color, creed, religion, national origin, sex, marital status, status with regard
to public assistance or disability.
INTRODUCTION TO COMPUTERS

Course Syllabus

Text: Application Software for the IBM PC

Dates:
Xxxxx XX, XX, XX
Xxxxx XX, XX, XX

XX Xxxxx Introduction to the computer - hardware and software
XX XXXXX D O S - directories, files, and basic commands
XX Xxxxx Word Processing - PC-Type+
XX Xxxxx Electronic Spreadsheets - PC-Calc+
XX Xxxxx Database Management - PC-File+
XX Xxxxx Wrap up - Final Exam

SUGGESTIONS:

Take the responsibility to learn:

Ask questions - the only dumb question is the one that isn't asked.

Explore and fiddle - you can't hurt the computer, you can always "reboot".

Study the text, read the material and complete the lab exercises.
Introduction to Computers and DOS

1. DOS stands for D____ O________ S_______.

2. Word processing, database management and spreadsheets are referred to as _____________ programs.
   a. processing
   b. command
   c. application
   d. relational

3. Which of the following is not one of the important parts of the computer system?
   a. memory   b. CPU   c. Floppy Disk   d. Disk Drive(s)

4. The non-removable disk is called the _________ disk.

5. The removable disk is called the _________ disk.

6. The blinking line or block on the screen where data is to be entered is called the cursor. Circle: True    False

7. Data is organized on a disk in a structure of directories and ____________.

8. Two examples of input used with a computer are keyboard and ____________.

9. The A> or C> designation that is displayed on the screen is referred to as the system ____________.
   a. cursor
   b. header
   c. pointer
   d. prompt
10. To obtain a list of the files on a disk, use the command DIR.
    Circle:  True  False

11. To prepare a diskette for use it must first be ____________.
    a. formatted
    b. initialized
    c. booted
    d. filed

12. Two sizes of diskettes most commonly used are 5 1/4" and 8 1/2".
    Circle:  True  False
COMPUTER SKILLS SURVEY

Student Name ____________________________

Introduction to Word Processing

1. A word processing program is used to create
   a. letters
   b. memos
   c. documents
   d. reports
   e. all of the above

2. When creating a document, the data being entered is held in the computer ___________.

3. Aligning a paragraph of text on the right margin is referred to as right justification, Circle: True False

4. To save a document means to send the data to a ___________.

5. A typical sheet of 8 1/2" X 11" paper has room for 100 lines of text. Circle: True False

6. To look for a particular word within the text and to change it to another word is called _________ and replace.
COMPUTER SKILLS SURVEY

Student Name

Introduction to Electronic Spreadsheets

1. Using an electronic spreadsheet, data is formatted into rows and ____________.

2. The specific locations into which the numbers are entered are called bytes. Circle: True False

3. Lotus 1-2-3 is a popular spreadsheet program. Like a word processing program, it is referred to as an ____________ program.

4. When using a word processing or spreadsheet program, the program is loaded from disk into the computer's ____________.

5. The five (5) functions that can be performed on the data in a spreadsheet are:
   a. adding or sum
   b. averages
   c. maximum value
   d. minimum value
   e. net present value
   f. all of the above

6. All functions are performed in the computer memory, and must be saved on a disk for future use. Circle: True False
COMPUTER SKILLS SURVEY

Introduction to Database Management

1. A database is a collection of _________ data.
   a. recorded
   b. related
   c. complex
   d. formatted

2. A data item such as a NAME or PHONE NUMBER in a database is referred to as a field. Circle: True False

3. Two or more of these related data items, for example a NAME, ADDRESS, and PHONE NUMBER together are called a _________.

4. An ALPHANUMERIC field can have letters and numbers but a NUMERIC field must have all except:
   a. asterisks
   b. numbers
   c. decimal points
   d. minus signs

5. When naming fields, the tab key should be used rather than spaces. Circle: True False

6. Retrieving data from a Database to a Spreadsheet is referred to as importing data. Circle: True False
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Identify and describe the major PC components.

HANDOUT: 3 Drive System / 2 Drive System
MEMORY / STORAGE

Also: PC Motherboard. 5 1/4 drive.
3 1/2 drive, Hard Disk Drive

TIMING: 1 hour

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the typical systems &amp; point out the 2 drive vs. 3 drive system</td>
<td>Overhead 1</td>
</tr>
<tr>
<td>Ask students to identify which system they have in front of them</td>
<td></td>
</tr>
<tr>
<td>Describe the motherboard components - pass around room</td>
<td></td>
</tr>
<tr>
<td>Point out the drive designations A: B: C: etc.</td>
<td></td>
</tr>
<tr>
<td>Describe the drives, pass them around the room</td>
<td></td>
</tr>
<tr>
<td>Hard Drive - take top off &amp; pass around</td>
<td></td>
</tr>
<tr>
<td>Describe the types of monitors found on systems - mono, CGA, EGA, &amp; VGA</td>
<td></td>
</tr>
<tr>
<td>Describe the two types of keyboards found. One type is on the lab system, the other is in the book - page 6</td>
<td></td>
</tr>
<tr>
<td>Describe MEMORY &amp; STORAGE &amp; discuss the differences</td>
<td>Overhead 2</td>
</tr>
</tbody>
</table>
# Drive System

**3 Drive System**

- A: Floppy Drive
- B: Floppy Drive
- C: Hard Disk

**2 Drive System**

- A: Floppy Drive
- B: Floppy Drive

## Diskette Capacities

<table>
<thead>
<tr>
<th>Diskette Capacities</th>
<th>5 1/4&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>180 Kb</td>
</tr>
<tr>
<td>DS</td>
<td>360 Kb</td>
</tr>
<tr>
<td>HC</td>
<td>1.2 Mb</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diskette Capacities</th>
<th>3 1/2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS</td>
<td>720 Kb</td>
</tr>
<tr>
<td>HC</td>
<td>1.44 Mb</td>
</tr>
</tbody>
</table>
MEMORY
(RAM)

STORAGE
(Disk / Diskette)
OBJECTIVE: List the disk and diskette types and capacities.

HANDOUT: 3 Drive System / 2 Drive System
Hard Drive - floppy diskettes 5 1/4" & 3 1/2"

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the diskette sizes and capacities</td>
<td>Overhead 1</td>
</tr>
<tr>
<td>Pass around the diskette samples - the ones that are opened up for demo purposes</td>
<td></td>
</tr>
<tr>
<td>Point out the components - what it's made of (plastic) with metal oxide coating, write protect, index mark</td>
<td></td>
</tr>
<tr>
<td>Describe the problem they will have in formatting a diskette, specifically that they will format a regular density diskette on a high capacity drive</td>
<td></td>
</tr>
<tr>
<td>Discuss the hard drive &amp; its' capacity - point out that the lab system is a 20 Meg drive - describe the typical drive size 100 Meg &amp; up to 600 - 800 Meg for a &quot;file server&quot; on a network</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Describe proper diskette handling techniques and

HANDOUT: Diskettes - HANDLE WITH CARE
TRACK - CYLINDER - SECTOR
demo floppies

TIMING: 20 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss topics on the H.O.</td>
<td></td>
</tr>
<tr>
<td>Store in envelope</td>
<td></td>
</tr>
<tr>
<td>Use labels</td>
<td></td>
</tr>
<tr>
<td>Do not touch media</td>
<td></td>
</tr>
<tr>
<td>Do not bend</td>
<td></td>
</tr>
<tr>
<td>Do not overheat</td>
<td></td>
</tr>
<tr>
<td>Caution - magnetism</td>
<td></td>
</tr>
<tr>
<td>TRACK - CYLINDER - SECTOR</td>
<td></td>
</tr>
<tr>
<td>Describe how data is stored on a disk or diskette - be sure to define that the recording concept applies to both hard disk and floppies</td>
<td></td>
</tr>
<tr>
<td>Discuss briefly the way the floppies work - like a tape player the heads actually touch the surface - whereas the hard disk heads &quot;fly&quot; over the recording surface.</td>
<td></td>
</tr>
</tbody>
</table>
Diskettes - HANDLE WITH CARE

- Store in envelope
- Use labels
- Do not touch media
- Do not bend
- Do not overheat
- Caution - magnetism
TRACK - a line of magnetic flux changes

CYLINDER - tracks on all surfaces

SECTOR - portion of a track, 512 bytes of data
OBJECTIVE: Describe the basic software categories used with IBM and compatible computers.

HANDOUT: Software Categories
Also: motherboard

TIMING: 15 - 20 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firmware - point to a ROM chip on the motherboard</td>
<td></td>
</tr>
<tr>
<td>Operating System - DOS point out that the DOS comes on a disk and it is an Operating System</td>
<td></td>
</tr>
<tr>
<td>Application Software - discuss the applications that will be used in the course PCTYPE, PCCALC, &amp; PCFILE</td>
<td></td>
</tr>
</tbody>
</table>
Software Categories

Firmware - ROM BIOS
Operating System - DOS
Application - dBASE III Plus
 INTRODUCTION TO COMPUTERS  
Instructor Guide  

OBJECTIVE: Describe the Disk Operating System and its function.  

HANDOUT: DOS loads from disk - Memory Map  

TIMING: 20 - 30 minutes  

OUTLINE:  

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe how DOS is purchased on disk - describe the Rev. levels 3.2, 3.3, 4.01, 5.0</td>
<td>Refer to the handout, show how DOS loads into memory</td>
</tr>
<tr>
<td>Point out how it loads from either diskette or hard disk</td>
<td></td>
</tr>
<tr>
<td>At this point - if they have not done so yet, have the students power up the system</td>
<td></td>
</tr>
<tr>
<td>Point out what happens during power up - the memory count up - the beep - some systems probably have a virus checker</td>
<td></td>
</tr>
<tr>
<td>Walk them through the screen of the DOS SHELL. Describe each section - have them access the &quot;Change Colors&quot; screen. Then have them go to the DOS command prompt.</td>
<td></td>
</tr>
<tr>
<td>Step them through DIR command using /P and /W</td>
<td></td>
</tr>
<tr>
<td>Describe - directory &amp; file structure. Draw a simple directory tree - include the root directory and DOS directory and the directories for the three applications.</td>
<td></td>
</tr>
</tbody>
</table>

-- This should be the end of session 1 --
DOS loads from Disk to a specific location in the RAM of the PC.
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE:

Draw and explain the directory / file structure used with an IBM or compatible computer.

HANDOUT:

DOS loads from disk - Memory Map
Directory structure
Files that will "run"
INTRODUCTION TO DISK OPERATING SYSTEM (Worksheet)

TIMING:

Review 30 - 45 minutes
Directory & File structure 30 - 45 minutes

OUTLINE:

TOPIC

TIPS & HINTS

Each session should begin with a review of the last week.

Keep in mind that some of these (most) students have never before used a computer so their keyboard skills will be very shaky at best. Practice patients with these students.

Have students power up the systems. Review what happens during a power up - refer to the overhead "DOS loads from disk - Memory Map"

Describe - directory & file structure. Draw a simple directory tree - include the root directory and DOS directory and the directories for the three applications.

Review the DIR command - Introduce the CD command -

Discuss the Files that will "run" handout. Have the students review different directories to look for the files that will run.

INTRO TO DISK OPERATING SYSTEM (Worksheet)

Have the students practice getting in and out of the DOS SHELL. Have them get in and out of the shell a few times.

Use the Directory Structure handout / overhead

Now that they have started the system a couple of times, this worksheet will mean more.
Files that will "run"

<table>
<thead>
<tr>
<th>BAT</th>
<th>Batch File</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>Command File</td>
</tr>
<tr>
<td>EXE</td>
<td>Executable File</td>
</tr>
</tbody>
</table>
INTRODUCTION TO DISK OPERATING SYSTEM

DOS is an acronym for D____ O_________ S_______. An operating system manages the _____________ of a computer system and provides a method for an _______________ program to efficiently use the computer system.

DOS also provides a common _______ _____________ for application programs. It organizes the information into a useable framework of _______ and ________________.

The operating system (DOS) controls ______ _________ between the PC and the _____________, monitors the _____ and _____ and supervises _____________ utilization.

Application ___________ depend on DOS for ______________ and __________ of its information. All __________ _________ use an operating system, some of the common OS's you may have heard of are _____, _________ DOS and ________.

The IBM and compatible computers use ___-DOS or ___-DOS. The MS refers to Microsoft Corporation and is the most widely used DOS.

The PC-DOS is specific to the _____ PC's and is essentially the same as MS-DOS. All of the functions discussed in this course are with reference to both MS-DOS or PC-DOS.
**INTRODUCTION TO COMPUTERS**

**Instructor Guide**

**OBJECTIVE:** Enter basic DOS commands using an IBM or compatible computer.

**HANDOUT:** DOS Reference Handout

**TIMING:** 1 - 1.5 hours

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have students try the basic DOS commands:</td>
<td>This is one of those times that you should give the students a little time to fiddle with the computer.</td>
</tr>
<tr>
<td>TIME</td>
<td>Monitor the students and be prepared to answer any questions that may arise.</td>
</tr>
<tr>
<td>DATE</td>
<td></td>
</tr>
<tr>
<td>DIR, DIR/P, DIR/W</td>
<td></td>
</tr>
<tr>
<td>CD</td>
<td></td>
</tr>
<tr>
<td>CHKDSK</td>
<td></td>
</tr>
</tbody>
</table>
D O S COM MANDS

Commands are what you, the operator, enter to tell DOS what to do. Some commands are __________ commands and are called so because they are loaded into and are stored in the computer’s ________________.

The other commands are __________ commands and reside on the DOS disk or diskette. External commands are only accessible when the DOS disk and directory is the __________ drive and directory.

Some INTERNAL commands are:

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>DIR</th>
<th>COPY</th>
<th>CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEL</td>
<td>ERASE</td>
<td>MD</td>
<td>RD</td>
<td>CD</td>
</tr>
<tr>
<td>RENAME</td>
<td>VOL</td>
<td>TYPE</td>
<td>CLS</td>
<td>PATH</td>
</tr>
</tbody>
</table>

Commands can only be entered when the system __________ is present. The EXTERNAL command files must either be in the __________ directory or a ______ to the command files must be included. Commands must be entered with specific __________ and _________________ that are unique to specific commands.
The following is a composite of the commands that will be used in the labs for this class. Brackets [ ] indicate optional items in the command.

BACKUP - External command

BACKUP Drive:[\path\filename.ext] Drive:[/s][/d][/m]

/s also backs up subdirectory files.
/d backs up files that have been modified on or after a specified date.
/m backs up files that have been modified since the last backup.

examples:

BACKUP C:\ A:/S    Back up the entire hard disk.
BACKUP C:\ACCTG A: Back up the files within \ACCTG.

CD (Change Directory) - Internal command

CD\Path\

examples:

CD\ Change current directory to root directory.
CD\ACCTG Change current directory to \ACCTG.
CD Display current directory.

CHKDSK - External command

CHKDSK [d:]

examples:

CHKDSK A: Check the disk in drive A.
CHKDSK /f Check the current disk and fix any lost clusters.
COPY - Internal command

COPY [Drive:][\Path]\filename.ext [Drive:][\Path][\file]

examples:

COPY A:AUTOEXEC.BAT C:
Copy the AUTOEXEC.BAT file from Drive A to Drive C.

COPY A:GAME-A C:\FUN\GAME-B
Copy GAME-A from drive A to directory FUN of Drive C and rename the file to GAME-B.

DEL (DELete) - Internal command

DEL [Drive:][\Path]\filename.ext

examples:

DEL A:\ACCTG\ACCTS.REC
Delete the file ACCTS.REC under the ACCTG directory

DEL A:*.*.BAK
Delete all files in the A drive with an extension of BAK.

DEL A:*.*
Delete all files in the A Drive.

DIR (DIRectory) - Internal command

DIR [Drive:][\Path][\filename.ext][/p][/w]

examples:

DIR List a directory of the current directory on the current drive.

DIR C:\ACCTG/p
Display a listing of the ACCTG directory on drive C one page at a time.
DISKCOPY - External command

DISKCOPY Drive: Drive:

examples:

DISKCOPY A: B:
Copy the entire contents of the diskette in drive A onto the diskette in drive B

DISKCOPY A: A:
Copy the entire contents of a diskette to another diskette using the A drive as the source and the destination.

FORMAT - External command

FORMAT Drive: [/s]

examples:

FORMAT A: Prepare the diskette in drive A as a data diskette.

FORMAT A:/s Prepare the diskette in drive A as a boot diskette.

MD (Make Directory) - Internal command

MD \Path\ 

examples:

MD MONEY Create a subdirectory called MONEY below the current directory
PATH - Internal command

PATH [Drive:]\[Path]\[;\Path]...

examples:

PATH C:\DOS

Set the search path to include the root directory and the DOS subdirectory.

PATH Shows the current path.

PROMPT - Internal command

PROMPT [$X] (Where $X is equal to item in table A)

| d = current date | p = current directory |
| t = current time | $ = $ |
| v = DOS version | n = default drive |
| g = > | l = < |
| b = | q = = |
| h = backspace | e = escape character |
| - = carriage return and line feed |

examples:

PROMPT Hello !!! Replace prompt with text "Hello !!!"

PROMPT $p Replace prompt with current directory.

RD (Remove Directory) - Internal command

RD \Path\

example:

RD VACCTG\MONEY NOTE: Directory must be empty.

Remove the directory called MONEY under the VACCTG directory.
D O S COMMAND REFERENCE

RENAME - Internal command

RENAME [Drive:][\Path]\filename.ext newname.ext

example:

RENAME C:\MONEY DOLLARS

Renams the file MONEY on drive C to DOLLARS.

RESTORE - External command

RESTORE Drive:[\Path\filename.ext] Drive: [/s]/[p]

examples:

RESTORE A: C:\nV

Restore backed up diskettes to drive C including all subdirectories.

RESTORE A: C:\ACCTG

Restore files to \ACCTG on the C drive.

TYPE - Internal command

TYPE [Drive:][\Path]\filename.ext

example:

TYPE autoexec.bat

Display the contents of the ASCII file AUTOEXEC.BAT.
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Format a diskette using an IBM or compatible computer.

HANDOUT: FORMATTING DISKETTES

TIMING: 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribute the worksheet and complete it as a group.</td>
<td></td>
</tr>
<tr>
<td>Point out that the two tables on the worksheet refer to the two different sizes of diskettes.</td>
<td></td>
</tr>
<tr>
<td>Distribute the floppy diskettes - ask the students if anyone remembers the problem we need to pay attention to.</td>
<td>The &quot;problem&quot; refered to is that we have a high capacity disk drive and a regular capacity diskette.</td>
</tr>
<tr>
<td>Discuss the ways that the FORMAT command can be used.</td>
<td>You may want to refer back to the first handout - 2 or 3 drive systems - the sizes &amp; capacities are listed there.</td>
</tr>
</tbody>
</table>

- - - - - - - This should be the end of session 2 - - - - - - -
FORMATTING DISKETTES

New diskettes must be ___________ before they can be used to store ___________ or ________.

Formatting ________ all data on a diskette (if there is any) and appropriately prepares the ________ and ________ to accept ________.

It ________ the diskette for any ___ spots, builds the F____ A________ T_____ (FAT) and builds a ________ directory.

Formatting is done with the ________ command and one or more of the following ____________.

<table>
<thead>
<tr>
<th>FORMAT COMMANDS - 3 1/2&quot; DISKETTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of drive / Type of diskette</td>
</tr>
<tr>
<td>Regular</td>
</tr>
<tr>
<td>High Capacity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMAT COMMANDS - 5 1/4&quot; DISKETTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of drive / Type of diskette</td>
</tr>
<tr>
<td>Regular</td>
</tr>
<tr>
<td>High Capacity</td>
</tr>
</tbody>
</table>

/3 This parameter formats the ______ or __________ and ________ the system files ______.COM, ______.COM and ______.COM to the diskette.

CAUTION

FORMATTING DESTROYS ANY PREVIOUSLY EXISTING DATA ON THE DISKETTE !!!
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Access and start the PCTYPE Word Processing program.

HANDOUT: Memory Contents - Memory Map

TIMING: 20 - 30 minutes (includes review time)

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Each session should begin with a <em>review</em> of the last week.</td>
</tr>
<tr>
<td></td>
<td>Keep in mind that some of these (most) students have never before used a computer so their keyboard skills will be very shaky at best. Practice patients with these students.</td>
</tr>
<tr>
<td></td>
<td>The intention here is to use the CD command to access the PCTYPE program in the PCWP directory.</td>
</tr>
<tr>
<td></td>
<td>The students should get into the program via the DOS command prompt. The DOS SHELL is easier but the best way to learn DOS is using the DOS commands.</td>
</tr>
<tr>
<td></td>
<td>Refer to the Memory Map - point out how the application program loads into memory with DOS and the other items.</td>
</tr>
<tr>
<td></td>
<td>Take just a few minutes to explain what the other memory contents consist of.</td>
</tr>
</tbody>
</table>
Memory Contents

application program

Trap and Stay Resident programs

DOS files, drivers and stacks

Interrupt, BIOS and System Data

Memory Map
OBJECTIVE: Retrieve a file stored on a diskette using the GET command.

HANDOUT: Application Software for the IBM PC

TIMING: 15 - 20 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can either use the book or &quot;walk&quot; them through the process of retrieving a file from the student diskette.</td>
<td>Introduce the GET command</td>
</tr>
<tr>
<td>You need to explain the PCTYPE screen and all of the parts - they need to have the cursor on the &quot;command line&quot; to enter the GET command.</td>
<td></td>
</tr>
<tr>
<td>Point out that if they do a GET command twice, they will load the file twice.</td>
<td></td>
</tr>
</tbody>
</table>
**INTRODUCTION TO COMPUTERS**

**Instructor Guide**

**OBJECTIVE:** Define text entry and cursor movement keys used in the PCTYPE program.

**HANDOUT:** Application Software for the IBM PC

**TIMING:** 1 - 1.5 hours

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the basic keyboard entry keys -</td>
<td>Have the students enter some data - anything that put data in the screen.</td>
</tr>
<tr>
<td>Describe the main keyboard</td>
<td>Then have them use the keys to get around on the screen.</td>
</tr>
<tr>
<td>Describe the numeric key pad</td>
<td></td>
</tr>
<tr>
<td>Describe the cursor movement arrows</td>
<td></td>
</tr>
<tr>
<td>Describe the keys:</td>
<td>Be sure that the student trys all of the keys - perhaps list them on the board so that they can see them.</td>
</tr>
<tr>
<td>Insert</td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td></td>
</tr>
<tr>
<td>Page Up</td>
<td></td>
</tr>
<tr>
<td>Delete</td>
<td></td>
</tr>
<tr>
<td>End</td>
<td></td>
</tr>
<tr>
<td>Page Down</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Define the Function Keys displayed on the Message Line of the PCTYPE screen.

HANDOUT: Application Software for the IBM PC

TIMING: 15 - 20 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the keys - one by one and have the students try them.</td>
<td></td>
</tr>
<tr>
<td>There should be a discussion of the use of some of the keys that will be used the most.</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS

Instructor Guide

OBJECTIVE: Define the purpose and use of the PCTYPE Column Ruler.

HANDOUT: Application Software for the IBM PC

TIMING: 15 - 20 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have students experiment with the ruler and tabs.</td>
<td></td>
</tr>
<tr>
<td>Have them set new left and right margins</td>
<td></td>
</tr>
<tr>
<td>Have them discover the difference between the tab and the indent tab.</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS

Instructor Guide

OBJECTIVE: Save PCTYPE file to the student data diskette.

HANDOUT: Application Software for the IBM PC

TIMING: 10 - 15 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>The function keys will help them discover the F9 FILE key -</td>
</tr>
</tbody>
</table>

The save can be done with either F9 or SHIFT F9 have the students try both ways.

Explain the concept - this file is only usable with the PCTYPE program.

They can "look" at the file with DOS perhaps but they cannot do anything with it.

<table>
<thead>
<tr>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>They may need assistance with this since they will want to save it to a diskette. They of course need to specify the drive designator in the SAVE process.</td>
</tr>
</tbody>
</table>

You WILL have students who come to class and try to "GET" the file without first starting the program.

--- This should be the end of session 3 ---

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INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Access and start PC-CALC, the Spread Sheet program.

HANDOUT: Application Software for the IBM PC
Memory Contents - Memory Map
Directory Structure

TIMING: 20 - 30 minutes (includes review time)

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each session should begin with a review of the last week.</td>
<td>Either use your own explanation or refer to the text. Pages 125 - 128</td>
</tr>
<tr>
<td>Keep in mind that some of these (most) students have never before used a computer so their keyboard skills will be very shaky at best. Practice patients with these students.</td>
<td>There will have to be a review here. Even though the access is very similar to the PCTYPE program, the process should be reviewed to refresh their memory.</td>
</tr>
<tr>
<td>Take a few minutes to introduce the spreadsheet concept - many of the students will have no idea what a spreadsheet is.</td>
<td>The intention here - again is to use the CD command to access the PCCALC program in the PC-CALC directory.</td>
</tr>
<tr>
<td>The students should get into the program via the DOS command prompt. The DOS SHELL is easier but the best way to learn DOS is using the DOS commands.</td>
<td>Refer to the Memory Map - point out how the application program loads into memory with DOS and the other items.</td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS

Instructor Guide

OBJECTIVE: Load spreadsheet data using a student data diskette.

HANDOUT: Application Software for the IBM PC
          Memory Contents - Memory Map

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce the PCCALC screen</td>
<td></td>
</tr>
<tr>
<td>Discuss the different pieces of the screen -</td>
<td></td>
</tr>
<tr>
<td>rows / columns</td>
<td></td>
</tr>
<tr>
<td>cells</td>
<td></td>
</tr>
<tr>
<td>status line</td>
<td></td>
</tr>
<tr>
<td>data entry area</td>
<td></td>
</tr>
<tr>
<td>pointer</td>
<td></td>
</tr>
<tr>
<td>edit line</td>
<td></td>
</tr>
<tr>
<td>message line</td>
<td></td>
</tr>
<tr>
<td>Have them load a spreadsheet from the student diskette</td>
<td></td>
</tr>
<tr>
<td>Let them experiment with the spreadsheet.</td>
<td></td>
</tr>
<tr>
<td>List items to try:</td>
<td>Be sure to give them time guidance here. This is the</td>
</tr>
<tr>
<td>moving pointer</td>
<td>first time they have dealt with a spreadsheet.</td>
</tr>
<tr>
<td>changing values</td>
<td></td>
</tr>
<tr>
<td>review menus</td>
<td></td>
</tr>
<tr>
<td>discuss HELP screens</td>
<td></td>
</tr>
</tbody>
</table>
**INTRODUCTION TO COMPUTERS**

**Instructor Guide**

**OBJECTIVE:** Enter data, text and formulas into cells to accomplish a simple spreadsheet application.

**HANDOUT:** Jones Family Budget

**TIMING:** 1 - 1.5 hours

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now that they have seen a spreadsheet and tried a few things, have them build one.</td>
<td>Build this with them - describe each detail as you build each piece of the spreadsheet.</td>
</tr>
<tr>
<td>Have them build a budget sheet similar to the &quot;Jones Family Budget&quot;</td>
<td>This will get them familiar with the spreadsheet components</td>
</tr>
</tbody>
</table>
## Jones Family Budget - 1st Qtr. 1992

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>600.00</td>
<td>600.00</td>
<td>600.00</td>
<td>1800.00</td>
</tr>
<tr>
<td>Car</td>
<td>289.00</td>
<td>289.00</td>
<td>289.00</td>
<td>867.00</td>
</tr>
<tr>
<td>N.S.P</td>
<td>66.00</td>
<td>69.00</td>
<td>58.00</td>
<td>193.00</td>
</tr>
<tr>
<td>Minnegasco</td>
<td>48.00</td>
<td>48.00</td>
<td>48.00</td>
<td>144.00</td>
</tr>
<tr>
<td>City Utilities</td>
<td></td>
<td></td>
<td>110.00</td>
<td>110.00</td>
</tr>
<tr>
<td>Sears</td>
<td>12.00</td>
<td>22.00</td>
<td>18.00</td>
<td>52.00</td>
</tr>
<tr>
<td>Visa</td>
<td>50.00</td>
<td>50.00</td>
<td>35.00</td>
<td>135.00</td>
</tr>
<tr>
<td>Insurance</td>
<td>150.00</td>
<td></td>
<td>110.00</td>
<td>260.00</td>
</tr>
<tr>
<td>Food</td>
<td>380.00</td>
<td>350.00</td>
<td>365.00</td>
<td>1095.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1595.00</strong></td>
<td><strong>1428.00</strong></td>
<td><strong>1633.00</strong></td>
<td><strong>4656.00</strong></td>
</tr>
</tbody>
</table>
OBJECTIVE: Save spreadsheet data using a student data diskette.

HANDOUT: Application Software for the IBM PC

TIMING: 10 - 15 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point out that the save is different than the save in PCTYPE.</td>
<td>Explain the differences in various application programs.</td>
</tr>
<tr>
<td>Select MENU to save the file.</td>
<td>The students - once exposed to a &quot;SAVE&quot; such as in PCTYPE tend to try the same steps in saving a PCCALC file.</td>
</tr>
<tr>
<td>After saving - go to DOS to show them that the file was saved with a .PCC as an extension for the file name.</td>
<td></td>
</tr>
</tbody>
</table>

- - - - - - - This should be the end of session 4 - - - - - - -
OBJECTIVE: Access and start PC-FILE, the Data Base program.

HANDOUT: Application Software for the IBM PC Memory Contents - Memory Map

TIMING: 20 - 30 minutes (includes review time)

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Each session should begin with a review of the last week.</td>
</tr>
<tr>
<td></td>
<td>Keep in mind that some of these (most) students have never before used a computer so their keyboard skills will be very shaky at best. Practice patients with these students.</td>
</tr>
<tr>
<td></td>
<td>Take a few minutes to introduce the database concept - many of the students will have no idea what a database is.</td>
</tr>
<tr>
<td></td>
<td>Explain: file record field</td>
</tr>
<tr>
<td></td>
<td>The intention here - again is to use the CD command to access the PCFILE program in the PC-FILE directory.</td>
</tr>
<tr>
<td></td>
<td>The students should get into the program via the DOS command prompt. The DOS SHELL is easier but the best way to learn DOS is using the DOS commands.</td>
</tr>
<tr>
<td></td>
<td>Refer to the Memory Map - point out how the application program loads into memory with DOS and the other items.</td>
</tr>
<tr>
<td></td>
<td>Either use your own explanation or refer to the text. Pages 238 - 241</td>
</tr>
<tr>
<td></td>
<td>There will have to be a review here. Even though the access is very similar to the PCTYPE and PCCALC program, the process should be reviewed to refresh their memory.</td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS
Instructor Guide

OBJECTIVE: Load database data using a student data diskette and define the data base components.

HANDOUT: Application Software for the IBM PC

TIMING: 30 - 45 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce the PCFILE screens</td>
<td></td>
</tr>
<tr>
<td>Discuss the different pieces and components as you step thru the screens -</td>
<td></td>
</tr>
<tr>
<td>Which drive for the database</td>
<td>You may (but probably not) run into an issue with CONFIG.SYS - see pg 244</td>
</tr>
<tr>
<td>Selecting a database</td>
<td></td>
</tr>
<tr>
<td>Menus: locating a record browse, etc.</td>
<td></td>
</tr>
<tr>
<td>Explain: file record field</td>
<td></td>
</tr>
<tr>
<td>edit line</td>
<td></td>
</tr>
<tr>
<td>message line</td>
<td></td>
</tr>
<tr>
<td>Have them load a database from the student diskette</td>
<td>Use &quot;CUSTOMER&quot; database Note: F10 not &lt;Enter&gt;</td>
</tr>
<tr>
<td>Let them experiment with the database</td>
<td>Be sure to give them time guidance here. This is the first time they have dealt with a database.</td>
</tr>
<tr>
<td>List items to try: finding a record next record previous record etc. discuss HELP &quot;Alt/H&quot;</td>
<td>Be open to questions.</td>
</tr>
</tbody>
</table>
### INTRODUCTION TO COMPUTERS

**Instructor Guide**

**OBJECTIVE:** Enter data, and create a simple data base file.

**HANDOUT:** Application Software for the IBM PC

**TIMING:** 45 - 60 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now that they have seen a database and tried a few things, have them build one.</td>
<td>Build this with them - describe each detail as you build each piece of the database. This will get them familiar with the database components as it is built.</td>
</tr>
<tr>
<td>Have them build a simple database using names that they are familiar with.</td>
<td></td>
</tr>
<tr>
<td>Have the students notice that the database record is saved automatically each time a record is saved.</td>
<td></td>
</tr>
</tbody>
</table>
**INTRODUCTION TO COMPUTERS**

Instructor Guide

**OBJECTIVE:**
Save database data using a student data diskette.

**HANDOUT:**
Application Software for the IBM PC

**TIMING:**
5 - 10 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>This should be done as the students save each record in building a database.</td>
<td>Here again, the students need an explanation of the different types of applications and how the save is different for each.</td>
</tr>
<tr>
<td>Remind them that the record was saved each time one was created.</td>
<td></td>
</tr>
</tbody>
</table>

--- This should be the end of session 5 ---
OBJECTIVE: N/A - LAST SESSION

HANDOUT: Application Software for the IBM PC
         Pre / Post Quiz
         Evaluation Forms

TIMING: 3 - 4 hours (leave at least 45 minutes for the quiz and evaluation)

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
</table>

Each session should begin with a review of the last week.

Keep in mind that some of these (most) students have never before used a computer so their keyboard skills will be very shaky at best. Practice patients with these students.

The last session is an open lab. Point out to the students that they have the opportunity to spend the time where they want.

You will be available to answer questions as they need.

Leave about 45 - 60 minutes for the quiz and evaluation.
COMPUTER SKILLS SURVEY
INTRODUCTION TO COMPUTERS

Student Name ____________________________

Introduction to Computers and DOS

1. D O S stands for D_____ O___________ S_______.

2. Word processing, database management and spreadsheets are referred to as __________ programs.
   a. processing
   b. command
   c. application
   d. relational

3. Which of the following is not one of the important parts of the computer system?
   a. memory    b. CPU    c. Floppy Disk    d. Disk Drive(s)

4. The non-removable disk is called the ________ disk.

5. The removable disk is called the ________ disk.

6. The blinking line or block on the screen where data is to be entered is called the cursor. Circle: True False

7. Data is organized on a disk in a structure of directories and __________.

8. Two examples of input used with a computer are keyboard and __________.

9. The A> or C> designation that is displayed on the screen is referred to as the system __________.
   a. cursor
   b. header
   c. pointer
   d. prompt
10. To obtain a list of the files on a disk, use the command DIR.

Circle: True    False

11. To prepare a diskette for use it must first be ____________.

   a. formatted
   b. initialized
   c. booted
   d. filed

12. Two sizes of diskettes most commonly used are 5 1/4" and 8 1/2".

Circle: True    False
COMPUTER SKILLS SURVEY

Student Name ___________________________________________

Introduction to Word Processing

1. A word processing program is used to create
   a. letters
   b. memos
   c. documents
   d. reports
   e. all of the above

2. When creating a document, the data being entered is held in the computer ____________.

3. Aligning a paragraph of text on the right margin is referred to as right justification. Circle: True False

4. To save a document means to send the data to a ____________.

5. A typical sheet of 8 1/2" X 11" paper has room for 100 lines of text. Circle: True False

6. To look for a particular word within the text and to change it to another word is called ____________ and replace.
1. Using an electronic spreadsheet, data is formatted into rows and __________.

2. The specific locations into which the numbers are entered are called bytes. Circle: True False

3. Lotus 1-2-3 is a popular spreadsheet program. Like a word processing program, it is referred to as an __________ program.

4. When using a word processing or spreadsheet program, the program is loaded from disk into the computer’s __________.

5. The five (5) functions that can be performed on the data in a spreadsheet are:
   a. adding or sum
   b. averages
   c. maximum value
   d. minimum value
   e. net present value
   f. all of the above

6. All functions are performed in the computer memory, and must be saved on a disk for future use. Circle: True False
COURSE EVALUATION
SKILL ENHANCEMENT TRAINING PROGRAM

COURSE _______________________________ DATE COMPLETED ______

INSTRUCTOR: __________________________

DIRECTIONS: Circle the number on the right to indicate how satisfied you are with the following aspects of the course you just completed. (5 = very satisfied; 1 = not satisfied)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Not Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Course Goals (specific, clearly communicated)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Content, Subject Matter (organized, appropriate for course goals)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Written Materials and Resources (up-to-date, easy to read, and/or follow)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Support from instructor (quick, courteous, helpful)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

What did you like about the course?

____________________________________________________________________

What didn't you like about the course?

____________________________________________________________________

What job related topics would you like addressed in future training sessions?

____________________________________________________________________

____ I would be interested in a follow-on group of computer classes.

____ A weekday evening would be most convenient. ______AM ______PM

____ Mon  ____Tues  ____Wed  ____Thurs  ____Fri

____ Saturday morning classes would be most convenient.

Please jot down any other comments you may have below.

____________________________________________________________________

3/92
COMPUTER SKILLS SURVEY

Introduction to Database Management

1. A database is a collection of ________ data.
   - a. recorded
   - b. related
   - c. complex
   - d. formatted

2. A data item such as a NAME or PHONE NUMBER in a database is referred to as a field. Circle: True False

3. Two or more of these related data items, for example a NAME, ADDRESS, and PHONE NUMBER together are called a r__________.

4. An ALPHANUMERIC field can have letters and numbers but a NUMERIC field must have all except:
   - a. asterisks
   - b. numbers
   - c. decimal points
   - d. minus signs

5. When naming fields, the tab key should be used rather than spaces. Circle: True False

6. Retrieving data from a Database to a Spreadsheet is referred to as importing data. Circle: True False
COURSE EVALUATION
SKILL ENHANCEMENT TRAINING PROGRAM

COURSE ______________________ DATE COMPLETED ______

INSTRUCTOR: ______________________

DIRECTIONS: Circle the number on the right to indicate how satisfied you are with the following aspects of the course you just completed. (5 = very satisfied; 1 = not satisfied)

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<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Written Materials and Resources (up-to-date, easy to read, and/or follow)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
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<td>1 2 3 4 5</td>
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</tr>
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</table>

What did you like about the course? ________________________________

What didn't you like about the course? ________________________________

What job related topics would you like addressed in future training sessions?

___ I would be interested in a follow-on group of computer classes.
___ A weekday evening would be most convenient. ___AM ___PM
    ___Mon ___Tues ___Wed ___Thurs ___Fri
___ Saturday morning classes would be most convenient.

Please jot down any other comments you may have below.

3/92
WORKPLACE LITERACY PROJECT

COMPUTER TRAINING

WORKPLACE LITERACY RESOURCE CENTER
1-800-832-4916

MINNESOTA TEAMSTERS SERVICE BUREAU
NORTHEAST METRO TECHNICAL COLLEGE

Introduction to Computers II
WORKPLACE LITERACY PROJECT
COMMERCIAL DRIVERS LICENSE

JEAN C. DUNN
Executive Director
Minnesota Teamsters Service Bureau

DR. PAUL BORANIAN
Project Director
Minnesota Teamsters Service Bureau

DR. BILL WARNER
President
Northeast Metro Technical College

JON A. HARBACK
Project Coordinator
Northeast Metro Technical College

Special thanks to Harold Yates, President of the Minnesota Teamsters Joint Council #32 for facilitating the involvement of a number of trucking companies in the Minnesota Teamsters Service Bureau Workplace Literacy Project

1992
INTRODUCTION TO COMPUTERS II

Course Description

The INTRODUCTION TO COMPUTERS II course is designed to continue the exploration of the computer to a greater depth. The student creates and organize directories and files, and learns the commands relating to directories and files.

In addition to directory commands, the top 20 DOS commands are learned and used.

The system startup is reviewed in detail and students learn how to read and customize the AUTOEXEC.BAT file.

Students learn how to use the line editor "EDLIN" to modify files. They will create and modify a batch file using EDLIN.

Students will describe the purpose of the CONFIG.SYS file and will modify it using EDLIN.

Students have the opportunity to continue with the PC-TYPE, PC-CALC, and PC-FILE applications. The class and lab time can be spent learning more about any of the applications or becoming more familiar with DOS.
INTRODUCTION TO COMPUTERS II

Performance Objectives

Upon completion of this course, the student will be able to:

Describe what steps are performed during a computer power-up sequence including Power On Self Test.

Performance will be satisfactory if the student can complete the steps required on a start-up worksheet.

Start MS-DOS and describe the difference between the DOS shell and the command prompt.

Performance will be satisfactory if the student can enter the proper keystrokes to switch between DOS shell and the DOS command prompt.

Describe the difference between a cold and warm boot.

Performance will be satisfactory if the student can describe the difference between a cold and warm boot on a worksheet.

Describe the naming conventions used with files.

Performance will be satisfactory if the student can create a directory structure on a diskette.

Describe the naming conventions used with volumes and directories.

Performance will be satisfactory if the student can properly name a disk volume, directory and a file.

Describe the command structure used for DOS commands.

Performance will be satisfactory if the student can enter and execute basic DOS commands.
INTRODUCTION TO COMPUTERS II

Performance Objectives

Upon completion of this course, the student will be able to:

Define the difference between Internal & External DOS commands.
Performance will be satisfactory if the student can list commands and identify them as Internal and External commands.

Describe what a Batch file is.
Performance will be satisfactory if the student can describe the contents of a batch file.

Create a Batch file using the "COPY CON" command.
Performance will be satisfactory if the student can use the COPY CON command to create a batch file.

Use the line editor "EDLIN" to modify the AUTOEXEC.BAT file.
Performance will be satisfactory if the student can modify the AUTOEXEC.BAT file using EDLIN.

Describe the purpose of the CONFIG.SYS file.
Performance will be satisfactory if the student can describe the commands used in the CONFIG.SYS file.
INTRODUCTION TO COMPUTERS II
Instructor Guide

This document is a Guide to be used by the instructor in teaching the INTRODUCTION TO COMPUTERS II Course. It also provides a means for updating the course. The TIPS & HINTS column in the outline segment of each section contains space for adding comments each time the course is run. This provides a way to pass on ideas and insight to other instructors that may teach the course.

The instructor Guide is structured in sequence with the objectives. It is organized into thirteen (13) sections, each covering one objective.

The reference text for the course, Application Software for the IBM PC. Supplemental handouts are included to provide information and skill practice for the different features in DOS.

The OUTLINE portion of the Instructor Guide provides direction and timing for each session.

The instructor should facilitate the sequence and timing of the session and serve as an advisor should there be any questions.

Each section is divided into the following segments.

OBJECTIVE: Performance objective listed.

REFERENCE: Application Software for the IBM PC.

HANDOUT: Handout(s) to be used in each lesson.

TIMING: The approximate time required to accomplish the objective. These times will vary, a range of time for each objective is indicated. The times that are indicated reflect the time allocated for the particular lesson. Extra time should be allowed for hands-on practice.

OUTLINE: Provides the direction and timing for each objective. The outline sheet is in a split-sheet format, with the TOPICS listed in the left column and the TIPS & HINTS in the right column. These TIPS & HINTS are comments relative to this lesson that may be helpful to you the instructor. This portion of the guide should be updated each time the session is run. These notes are a great help to the instructor and will assist in making the guide most useful.
OBJECTIVE: Introductions: Self, Students, Course and Text

HANDOUT: Registration forms
Course Syllabus

TIMING: 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration:</td>
<td></td>
</tr>
<tr>
<td>Distribute registration forms as required.</td>
<td></td>
</tr>
<tr>
<td>Introductions:</td>
<td></td>
</tr>
<tr>
<td>Introduce yourself and have students introduce themselves</td>
<td>Give them some guidance to help them - such as:</td>
</tr>
<tr>
<td>Name</td>
<td>Place of work</td>
</tr>
<tr>
<td>Computer background</td>
<td>Why they are taking Intro to Computers II</td>
</tr>
<tr>
<td>Introduce course:</td>
<td></td>
</tr>
<tr>
<td>Distribute the course syllabus, review each session content.</td>
<td>Ask for questions and concerns about the course or schedule.</td>
</tr>
<tr>
<td>Place the responsibility to learn on the students</td>
<td>Review the comments at the bottom of the syllabus.</td>
</tr>
</tbody>
</table>

Administer the quiz - point out that this is the same quiz as they will have at the end of the course.
This course will allow you to continue your exploration of the computer to a greater depth. You will also have the opportunity to continue with the PC-TYPE, PC-CALC, and PC-FILE applications. Your class and lab time can be spent learning more about any of the applications or becoming more familiar with DOS.

DOS topics to be covered:

I Disk Operating System
   Power up sequence
   Starting MS-DOS
   Cold and Warm boot

II Organizing volumes and files
   Naming conventions
   Directory and File tree structure
   Getting around in the "tree"

III DOS commands
   Command structure
   Internal / External commands
   Using DOS Commands

IV Batch files
   AUTOEXEC.BAT
   Creating Batch Files
   Batch File Commands

V Using Edlin to create and modify files
   Edlin commands
   Tips on using Edlin

VI Configuring a system
   Creating and modifying a CONFIG.SYS file
**OBJECTIVE:** Describe what steps are performed during a computer power-up sequence including Power On Self Test.

**HANDOUT:** SYSTEM STARTUP

**TIMING:** 20 - 30 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the startup sequence</td>
<td></td>
</tr>
<tr>
<td>Have the students do a start-up and observe the sequence.</td>
<td></td>
</tr>
<tr>
<td>Have them &quot;find&quot; the files described in the handout.</td>
<td></td>
</tr>
<tr>
<td>Describe the hidden files - explain why they are hidden</td>
<td></td>
</tr>
</tbody>
</table>
SYSTEM STARTUP

1. Apply power
2. Power supply self test - power good signal to Motherboard.
3. 8284 timer chip receives power good signal - stops generating a reset signal to the processor.
4. Processor executes instructions at FFFF:0000 - jump instruction to BIOS start location.
5. ROM BIOS starts and checks warm / cold boot flag. Warm start skips most of POST - cold start runs full POST.
6. POST begins and tests all major components and memory. Audio and video error messages indicate problems.
7. BIOS scans ROM for ROM programs in locations C000 through DF80. If found, they are tested and initialized.
8. BIOS searches for boot record on track 0 sector 1 on drive A. If found, it is loaded and executed. If not - continue.
9. BIOS looks for boot record on track 0 sector 1 on the hard disk. If found, it is loaded and executed.
10. The boot record (now in control) loads IBMBIO.COM and IBMDOS.COM and passes control to IBMBIO.COM.
11. IBMBIO.COM uses IBMDOS.COM to read CONFIG.SYS. Contents are used to establish system configuration, device drivers are loaded and any listed installable programs are loaded.
12. IBMBIO.COM uses IBMDOS.COM to load COMMAND.COM and passes control to COMMAND.COM.
13. COMMAND.COM loads and executes AUTOEXEC.BAT.
14. The DOS prompt appears.

CUSTOM TRAINING 1991
INTRODUCTION TO COMPUTERS II  
Instructor Guide

OBJECTIVE: Start MS-DOS and describe the difference between the DOS shell and the command prompt.

HANDOUT: N / A

TIMING: 30 - 45 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>After loading, have them get into and out of the DOS SHELL. This may be a review for many of the students but there may be some new students that are unfamiliar with the DOS SHELL.</td>
<td></td>
</tr>
<tr>
<td>Spend some time in the SHELL</td>
<td></td>
</tr>
<tr>
<td>Be sure the students know their way around the SHELL</td>
<td></td>
</tr>
<tr>
<td>Go to COMMAND PROMPT review the directory structure and some of the directory commands.</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION TO COMPUTERS II
Instructor Guide

OBJECTIVE: Describe the difference between a cold and warm boot.

HANDOUT: BOOTING OR STARTING DOS (2 pages)

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the handout -</td>
<td></td>
</tr>
<tr>
<td>Go step by step and have the students answer wherever possible.</td>
<td></td>
</tr>
<tr>
<td>Have them try and observe the difference between a COLD boot and a WARM boot.</td>
<td></td>
</tr>
<tr>
<td>Discuss the POST and what it accomplishes.</td>
<td></td>
</tr>
<tr>
<td>Review the drive designators A: B: C: etc.</td>
<td></td>
</tr>
</tbody>
</table>
BOOTING OR STARTING DOS

To start or _______ DOS, means to load the _________ files, IBMBIO.COM, IBMDOS.COM and COMMAND.COM into ________. These DOS files reside on the _______ disk (C:) or on a __________ to be used in the A drive (A:).

When the power is turned on, the system runs a P______ O____ S______ T_______ (POST) to check _________ and __________ (peripheral) connections. Starting the system by turning the power on is called a _______ BOOT.

After completing _______, the system loads the DOS _______ __ files and prompts the operator for the _______ and ________.

After the date and time have been ____________ entered, the system ______ A> or C> appears. The system is now ready to accept ____________ from the operator. The "A" or "C" part of the prompt indicates that the system is operating from that particular _________.

The prompt indicates that DOS is _______ and the system is expecting _______ ____________ to be entered.
BOOTING OR STARTING D O S
Continued

To restart the computer with ______ already applied, you can do what is known as a ______ BOOT.

You may use this type of BOOT process whenever you want to ______ the system without turning the ______ off.

A warm boot will ______ whatever is in ______. To do a warm boot hold down the ______ and ______ keys and press DEL.
**OBJECTIVE:** Identify the structure of volumes, directories and files.

**HANDOUT:** DIRECTORIES AND THE TREE STRUCTURE
Directory Structure

**TIMING:** 30 - 45 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the handout -</td>
<td></td>
</tr>
<tr>
<td>Go step by step and have the students answer wherever possible.</td>
<td></td>
</tr>
<tr>
<td>Drive Specifier</td>
<td></td>
</tr>
<tr>
<td>Volume Label</td>
<td></td>
</tr>
<tr>
<td>Root Directory</td>
<td></td>
</tr>
<tr>
<td>Subdirectories</td>
<td></td>
</tr>
<tr>
<td>Changing Directories</td>
<td></td>
</tr>
<tr>
<td>Path Names</td>
<td></td>
</tr>
<tr>
<td>Directory Commands</td>
<td></td>
</tr>
</tbody>
</table>

This should be a review for most students but not necessarily.
INTRODUCTION TO COMPUTERS II
Instructor Guide

OBJECTIVE: Describe the naming conventions used with files.

HANDOUT: FILES AND FILE NAMES

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
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<tbody>
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<tr>
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<td></td>
</tr>
<tr>
<td>the students answer</td>
<td></td>
</tr>
<tr>
<td>wherever possible.</td>
<td></td>
</tr>
<tr>
<td>File Names</td>
<td></td>
</tr>
<tr>
<td>Extensions</td>
<td></td>
</tr>
<tr>
<td>Reserved Names</td>
<td></td>
</tr>
<tr>
<td>Global File Name Char's</td>
<td></td>
</tr>
</tbody>
</table>

This may be a review for some students but not necessarily.
FILE AND FILE NAMES

FILENAME

________________________________________

________________________________________

EXTENSION

________________________________________

________________________________________

RESERVED NAMES

________________________________________

________________________________________

GLOBAL FILE NAME CHARACTERS

________________________________________

________________________________________
**OBJECTIVE:** Describe the naming conventions used with volumes and directories.

**HANDOUT:**

**TIMING:** 10 - 15 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no particular handout here.</td>
<td></td>
</tr>
<tr>
<td>Review the naming conventions used with files.</td>
<td></td>
</tr>
<tr>
<td>Same applies to directories, but the directory should have no extension.</td>
<td></td>
</tr>
<tr>
<td>Have them do a directory using the &quot;*.&quot; -</td>
<td></td>
</tr>
<tr>
<td>DIR *</td>
<td></td>
</tr>
<tr>
<td>This will get a listing of the directories only - and the files that have no extension.</td>
<td></td>
</tr>
<tr>
<td>Have them check the VOLUME LABEL of the C: drive.</td>
<td></td>
</tr>
<tr>
<td>Have them label a A: or B: diskette.</td>
<td>They may have to format a diskette first.</td>
</tr>
</tbody>
</table>
DIRECTORIES AND THE TREE STRUCTURE

DRIVE SPECIFIER

VOLUME LABEL

ROOT DIRECTORY

SUBDIRECTORIES

CHANGING DIRECTORIES

PATH NAMES

DIRECTORY COMMANDS
# INTRODUCTION TO COMPUTERS II

## Instructor Guide

<table>
<thead>
<tr>
<th>OBJECTIVE:</th>
<th>Describe the command structure used for DOS commands.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HANDOUT:</td>
<td>DOS COMMAND REFERENCE (5 pages)</td>
</tr>
<tr>
<td></td>
<td>DOS EXERCISE 1</td>
</tr>
<tr>
<td>TIMING:</td>
<td>45 - 60 minutes</td>
</tr>
<tr>
<td>OUTLINE:</td>
<td></td>
</tr>
</tbody>
</table>

## TOPIC | TIPS & HINTS
--- | ---

- **Review the DOS command structure.**
- **Review:**
  - `DIR /P`
  - `DIR /W`
  - `FORMAT (and appropriate switches)`
- **Be sure to review the fact that the command name has to be separated by a space.**
- **Have students complete DOS EXERCISE 1**
  - This is a very basic concern but many of these students will have this problem (not leaving a space after the DOS command).
  - Help the students through the exercise where needed.
D O S COMMANDS

Commands are what you, the operator, enter to tell DOS what to do. Some commands are __________ commands and are called so because they are loaded into and are stored in the computer's ___________.

The other commands are ___________ commands and reside on the DOS disk or diskette. External commands are only accessible when the DOS disk and directory is the ___________ drive and directory.

Some INTERNAL commands are:

- DATE
- TIME
- DIR
- COPY
- CD
- DEL
- ERASE
- MD
- RD
- PATH
- RENAME
- VOL
- TYPE
- CLS

Commands can only be entered when the system ___________ is present. The EXTERNAL command files must either be in the ___________ directory or a _____ to the command files must be included. Commands must be entered with specific ___________ and ___________ that are unique to specific commands.
The following is a composite of the commands that will be used in the labs for this class. Brackets [ ] indicate optional items in the command.

BACKUP - External command

BACKUP Drive:[path\filename.ext] Drive:/s[/d][/m]

/s also backs up subdirectory files.
/d backs up files that have been modified on or after a specified date.
/m backs up files that have been modified since the last backup.

examples:

BACKUP C:\A/S Back up the entire hard disk.
BACKUP C:\ACCTG A: Back up the files within \ACCTG.

CD (Change Directory) - Internal command

CD\Path\

examples:

CD\ Change current directory to root directory.
CD\ACCTG Change current directory to \ACCTG.
CD Display current directory.

CHKDSK - External command

CHKDSK [d:]

examples:

CHKDSK A: Check the disk in drive A.
CHKDSK /f Check the current disk and fix any lost clusters.
DOS COMMAND REFERENCE

COPY - Internal command

COPY [Drive:][\Path\]filename.ext [Drive:][\Path\][file]

examples:

COPY A:AUTOEXEC.BAT C:
Copy the AUTOEXEC.BAT file from Drive A to Drive C.

COPY A:GAME-A C:\FUN\GAME-B
Copy GAME-A from drive A to directory FUN of Drive C and rename the file to GAME-B.

DEL (DELete) - Internal command

DEL [Drive:][\Path\]filename.ext

examples:

DEL A:\ACCTG\ACCTS.REC
Delete the file ACCTS.REC under the ACCTG directory

DEL A:*.*.BAK
Delete all files in the A drive with an extension of BAK.

DEL A:*.*
Delete all files in the A Drive.

DIR (DIRectory) - Internal command

DIR [Drive:][\Path\][filename.ext][/p][/w]

examples:

DIR List a directory of the current directory on the current drive.

DIR C:\ACCTG/p
Display a listing of the ACCTG directory on drive C one page at a time.
D O S COMMAND REFERENCE

DISKCOPY - External command

DISKCOPY Drive: Drive:

examples:

DISKCOPY A: B:

Copy the entire contents of the diskette in drive A onto the diskette in drive B

DISKCOPY A: A:

Copy the entire contents of a diskette to another diskette using the A drive as the source and the destination.

FORMAT - External command

FORMAT Drive:/s

examples:

FORMAT A: Prepare the diskette in drive A as a data diskette.

FORMAT A:/s Prepare the diskette in drive A as a boot diskette.

MD (Make Directory) - Internal command

MD \Path\n
examples:

MD MONEY Create a subdirectory called MONEY below the current directory
PATH - internal command

PATH [Drive:]\Path\[,\Path\]

examples:
PATH C:\DOSS

Set the search path to include the root directory and the DOS subdirectory.

PATH Shows the current path.

PROMPT - Internal command

PROMPT [$X] (Where X is equal to item in table A)

d = current date   p = current directory
 t = current time   $ = $
 v = DOS version    n = default drive
 g = >              l = <
 b = |               q = =
 h = backspace      e = escape character
 \ = carriage return and line feed

examples:
PROMPT Hello !!! Replace prompt with text "Hello !!!"
PROMPT $p Replace prompt with current directory.

RD (Remove Directory) - Internal command

RD \Path\n
example:
RD ACCTG\MONEY NOTE: Directory must be empty.

Remove the directory called MONEY under the ACCTG directory.
RENAME - Internal command

RENAME [Drive:]\Path\filename.ext newname.ext

example:

RENAME C:\MONEY DOLLARS

Rename the file MONEY on drive C to DOLLARS.

RESTORE - External command

RESTORE Drive:\Path\filename.ext Drive:/s[/p]

examples:

RESTORE A: C:\N:\s

Restore backed up diskettes to drive C including all subdirectories.

RESTORE A: C:\ACCTG

Restore files to \ACCTG on the C drive.

TYPE - Internal command

TYPE [Drive:]\Path\filename.ext

example:

TYPE autoexec.bat

Display the contents of the ASCII file AUTOEXEC.BAT.
DOS EXERCISE 1

1. Use the `DATE` and `TIME` commands to set the date and time on your system.

2. Copy the `C:\AUTOEXEC.BAT` file to the DOS directory of A:. Write the command used to do that below.

3. Copy the `C:\AUTOEXEC.BAT` file to the DOS directory of A: and give it a new name of `AUTOEXEC.BAK`. Write the command used to do that below.

4. Use the `RENAME` command to rename the `AUTOEXEC.BAK` file to `TESTING.123`. Write the command below.

5. Use the `DEL` command to delete the file `TESTING.123`. Write the command below.

6. What is the other valid name for the `DEL` command?

7. Use the `TYPE` command to read the `AUTOEXEC.BAT` file.

8. Using the `PROMPT` command, change the prompt to have it indicate the current time, the current directory and the > sign. Write the appropriate command below.
INTRODUCTION TO COMPUTERS II
Instructor Guide

OBJECTIVE: Define the difference between Internal & External DOS commands.

HANDOUT: None

TIMING: 15 - 20 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the INTERNAL vs. EXTERNAL commands.</td>
<td></td>
</tr>
<tr>
<td>Have them try one of each:</td>
<td></td>
</tr>
<tr>
<td>Internal: DIR or COPY</td>
<td></td>
</tr>
<tr>
<td>External: CHKDSK or FORMAT</td>
<td></td>
</tr>
<tr>
<td>Have them observe the action or lack of action on the disk drive.</td>
<td></td>
</tr>
<tr>
<td>Review the commands that are typically found in the AUTOEXEC.BAT file. They will need this info for the next lab sessions.</td>
<td></td>
</tr>
</tbody>
</table>
OBJECTIVE: Describe what a Batch file is.

HANDOUT: BATCH FILES

TIMING: 15 - 20 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the first handout to describe what a BATCH file is.</td>
<td></td>
</tr>
<tr>
<td>Have students access the AUTOEXEC.BAT file and then have them review the commands that are in the file.</td>
<td></td>
</tr>
</tbody>
</table>
1. Using the TYPE command, display the AUTOEXEC.BAT file in the root directory of your disk.

   PROMPT
   PATH
   Others

2. Using the TYPE command display the CONFIG.SYS file.

   BUFFERS
   FILES
   ANSI.SYS
   Others

3. Other .BAT files?

   PCTOOLS - FORMAT.BAT

4. Create a BATCH file to accomplish what you did in the DOS 3 lab. Use the directory name of BATCH.LAB, and include a PAUSE command after each of the CHKDSK commands.
**INTRODUCTION TO COMPUTERS II**

**Instructor Guide**

**OBJECTIVE:** Create a Batch file using the "COPY CON" command.

**HANDOUT:** DOS EXERCISE 2

**TIMING:** 45 - 60 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have students complete DOS EXERCISE 2</td>
<td>Help the students through the exercise where needed.</td>
</tr>
</tbody>
</table>
DOS EXERCISE 2

1. Use the CHKDSK command to determine how much space is available on your A: diskette. Record the first three lines of the CHKDSK information below.


2. Create a DIRECTORY structure on the newly formatted diskette as indicated below.

   A:\ is called the ______ directory. NAME is the first _______

   Use your name for this directory, and then create the subdirectories below the directory of your NAME.

   ![Diagram]

3. After creating the above directory structure, execute a CHKDSK command for A: and record the statistics below.


4. Note the difference between "bytes available on disk" for this CHKDSK report and the previous page. How many BYTES does this directory structure take?

   ________ BYTES for the directory structure.
5. Change the current directory to A: \NOTES. Enter the "DIR" command for the A: \NOTES directory. What does the . and .. mean?

   . means ___________________________________________

   .. means ___________________________________________

6. Create a file called ADDRESS under the directory called NOTES. Follow the steps a. - e. below.
   
a. COPY CON A: \NAME \NOTES \ADDRESS
b. NAME
c. ADDRESS
d. CITY, STATE ZIP
e. ^Z  (This is an EOF "End Of File" mark)

7. Using the TYPE command, view the file you just created. List the command you use to do this in the space below.

   __________________________________________

8. In the space below, write the command you would use to output this file to a printer.

   __________________________________________
INTRODUCTION TO COMPUTERS II
Instructor Guide

OBJECTIVE: Use the line editor "EDLIN" to modify the AUTOEXEC.BAT file.

HANDOUT: EDLIN

TIMING: 45 - 60 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the EDLIN handout</td>
<td>Do only the basic commands at his time.</td>
</tr>
<tr>
<td>Step through the process to access EDLIN, review the process of editing an existing file versus creating a new file.</td>
<td></td>
</tr>
<tr>
<td>Demonstrate the various edit commands.</td>
<td></td>
</tr>
<tr>
<td>Have them edit the AAUTOEXEC.BAT file. Review the pieces of the file so they understand what the file does.</td>
<td></td>
</tr>
</tbody>
</table>
EDLIN - The Line Editor

This lab will introduce you to some of the basic EDLIN functions. You will load a file into the Line Editor, make changes to it, and re-write it back to disk.

1. Using the TYPE command, display your name and address from the file on your diskette.

   (This is the file you will be editing)

2. Using EDLIN, edit the address file as follows:

   Change your name to all CAPS.
   Put a space between your name and the address.
   Add a blank line and your phone number to the file.

   Command used to start EDLIN
   EDLIN Command to redo line
   EDLIN Command for Insert
   EDLIN Command for Delete
   EDLIN Command to append
   End EDLIN (2 ways)
INTRODUCTION TO COMPUTERS II

Instructor Guide

OBJECTIVE: Describe the purpose of the CONFIG.SYS file.

HANDOUT: CONFIG.SYS

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Review the handout.</td>
<td></td>
</tr>
<tr>
<td>Explain the purpose of the file, and what it provides for the start up procedure.</td>
<td></td>
</tr>
<tr>
<td>Have them use EDLIN to access and modify the file.</td>
<td></td>
</tr>
</tbody>
</table>
CONFIG.SYS

CONFIG.SYS is the configuration file that gives DOS specific information about the system. It provides information as to how much memory to use for disk and file storage and how to control certain parts of the computer via device drivers.

There are about 12 CONFIG.SYS commands used in the CONFIG.SYS file but there are only 3 that need attention.

BUFFERS The BUFFERS command is used to set the number of file buffers that DOS uses. This varies with different programs - 20 or 30 is common. The buffers are areas of memory that are set aside to store information as it is read from or written to disk.

FILES The FILES command is used to specify the number of files that are allowed to be open at one time. This also varies relative to the program used. As with BUFFERS, 20 or 30 is common.

DEVICE The DEVICE command is used to load device drivers. A device driver is used for add-on devices such as extra memory, a mouse or CD-ROM. The DEVICE command is often loaded automatically when the device is installed.

In most cases, the CONFIG.SYS file is modified as needed when programs are installed. However, it is a good idea to be aware of the basic commands in the event you need to modify the CONFIG.SYS file.
1. The Disk Operating System (DOS) is usually purchased on _________ and then installed on the ________ ________.

2. Listed below are the versions of DOS that are typically used. Circle the version numbers that include the DOSSHELL.
   Ver 3.2  Ver 3.3  Ver 4.01  Ver 5.0

3. Match the following functions with the corresponding key strokes.

   Function                      Key Strokes
   ___ DOSSHELL to DOS Prompt    a.  EXIT
   ___ DOS Prompt to DOSSHELL    b.  SHIFT/F9
   ___ DOS Prompt to DOSSHELL    c.  DOSSHELL

4. When naming the Volume (disk or diskette) as many as ______ characters are allowed.

5. When naming files or directories, as many as ______ characters are allowed. (Do not include the 3 character extension.)

6. The main directory of a disk or diskette, for example C:\ or B:\ is called the ______ directory. The directories below that directories are called ______ directories.

7. Write the command below that will give a listing of all files in the current directory that have a .COM extension.

   ________________________________
8. If the notch on the 5" floppy diskette is **covered**, it means:
   a. the diskette can be written on
   b. the diskette cannot be written on

9. Match the diskettes with the capacities:

<table>
<thead>
<tr>
<th>Diskette</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5&quot; Diskette DS DD</td>
<td>a. 720 KB</td>
</tr>
<tr>
<td>5&quot; Diskette HC</td>
<td>b. 1.2 MB</td>
</tr>
<tr>
<td>3½ Diskette DS DD</td>
<td>c. 1.44 MB</td>
</tr>
<tr>
<td>3½ Diskette HC</td>
<td>b. 360 KB</td>
</tr>
</tbody>
</table>

10. Identify the following DIRECTORY commands:

    - CD
    - MD
    - RD

11. When the computer is first turned on, the POST runs to check the system. What do the letters P O S T stand for?

    P       O   S   T

12. What is the key combination used to REBOOT the system without turning the power off?

    __________  ________  ________

13. The first file that is read by the computer on power-up is the __________.____ file.

14. If the command CD C:\PCWP is entered, what will the system prompt look like?

    __________
15. Match the diskette types with the correct FORMAT commands. The FORMAT command assumes use of the A: drive.

<table>
<thead>
<tr>
<th>Diskette</th>
<th>FORMAT Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>5½ DS Diskette</td>
<td>a. FORMAT A:/F:720</td>
</tr>
<tr>
<td>&quot;high capacity&quot; drive</td>
<td></td>
</tr>
<tr>
<td>5½ HC Diskette in a</td>
<td>b. FORMAT A:</td>
</tr>
<tr>
<td>&quot;high capacity&quot; drive</td>
<td></td>
</tr>
<tr>
<td>3½ DS Diskette in a</td>
<td>c. FORMAT A:/4</td>
</tr>
<tr>
<td>&quot;high capacity&quot; drive</td>
<td></td>
</tr>
<tr>
<td>3½ HC Diskette in a</td>
<td></td>
</tr>
<tr>
<td>&quot;high capacity&quot; drive</td>
<td></td>
</tr>
</tbody>
</table>

16. What command allows you to indicate to the computer where to look for the commands that are entered?

17. What command provides information as to the amount of data space that is remaining on the disk or diskette?

18. There are various types of files used in DOS but the three types of files that will "RUN" have specific three-letter extensions. What are the dot (.) extensions?

19. The line editor included with DOS is called ___________.

20. The two most common CONFIG.SYS commands are:
   a. PATH
   b. FILES
   c. PROMPT
   d. BUFFERS
COURSE EVALUATION  
SKILL ENHANCEMENT TRAINING PROGRAM

COURSE ___________________________  DATE COMPLETED _____

INSTRUCTOR: _______________________

DIRECTIONS: Circle the number on the right to indicate how satisfied you are with the following aspects of the course you just completed. (5 = very satisfied; 1 = not satisfied)

<table>
<thead>
<tr>
<th></th>
<th>Not Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Course Goals</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>(specific, clearly communicated)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Content, Subject Matter</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>(organized, appropriate for course goals)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Written Materials and Resources</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>(up-to-date, easy to read, and/or follow)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Support from instructor</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>(quick, courteous, helpful)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What did you like about the course?
__________________________________________________________________________

What didn't you like about the course?
__________________________________________________________________________

What job related topics would you like addressed in future training sessions?
__________________________________________________________________________

___ I would be interested in a follow-on group of computer classes.

___ A weekday evening would be most convenient. ___AM ___PM

    ___Mon ___Tues ___Wed ___Thurs ___Fri

___ Saturday morning classes would be most convenient.

Please jot down any other comments you may have below.

3/92
WORKPLACE LITERACY PROJECT

COMPUTER TRAINING

WORKPLACE LITERACY RESOURCE CENTER
1-800-832-4916

MINNESOTA TEAMSTERS SERVICE BUREAU
NORTHEAST METRO TECHNICAL COLLEGE

WORD PROCESSING
WITH PCTYPE
WORKPLACE LITERACY PROJECT
COMMERCIAL DRIVERS LICENSE

JEAN C. DUNN
Executive Director
Minnesota Teamsters Service Bureau

DR. PAUL BORANIAN
Project Director
Minnesota Teamsters Service Bureau

DR. BILL WARNER
President
Northeast Metro Technical College

JON A. HARBACK
Project Coordinator
Northeast Metro Technical College

Special thanks to Harold Yates, President of the Minnesota Teamsters Joint Council #32 for facilitating the involvement of a number of trucking companies in the Minnesota Teamsters Service Bureau Workplace Literacy Project

1992
WORD PROCESSING with PCTYPE

Course Description

This 3-session Word Processing workshop covers the PC-TYPE program in detail. During the three sessions, students concentrate on using PCTYPE for word processing.

Students will use the various features of PCTYPE to include marking of text to delete, copy, move or enhance text. This hands-on workshop will give students a chance to learn and use the features by editing a business letter. Most skills learned in this workshop will transfer to many other word processing program.
Access and start the PCTYPE Word Processing program.

Performance will be satisfactory if the student can make appropriate entries on the keyboard to access and start the PCWP program.

Retrieve a file stored on a diskette using the GET command.

Performance will be satisfactory if the student can make retrieve a file stored on the Student Data Diskette.

Define text entry and cursor movement keys used in the PCTYPE program.

Performance will be satisfactory if the student can enter data and demonstrate use of the cursor movement keys.

Define the Function Keys displayed on the Message Line of the PCTYPE screen.

Performance will be satisfactory if the student can enter data and demonstrate use of the cursor movement keys.

Define the use of Margins, Tabs & Indenting with the PCTYPE Column Ruler.

Performance will be satisfactory if the student can change Margins, Tabs & Indent symbols.

Demonstrate the marking of text to delete, copy, move or enhance text.

Performance will be satisfactory if the student can mark text to delete, copy, move or enhance it.

Demonstrate the use of the Special features.

Performance will be satisfactory if the student can demonstrate changing "case", splitting a line, use of the number pad and page control features.

Demonstrate the use of the Spell Check feature.

Performance will be satisfactory if the student can use the Spell Check feature.

Demonstrate the use of a Keystroke Macro.

Performance will be satisfactory if the student can create a Keystroke Macro.

Create Line and Box Drawing using PCTYPE.

Performance will be satisfactory if the student can create a box drawing using PCTYPE.
WORD PROCESSING using PC-TYPE

Instructor Guide

This document is a Guide to be used by the instructor in teaching the
WORD PROCESSING using PC-TYPE Course. It also provides a means for
updating the course. The TIPS & HINTS column in the outline segment of
each section contains space for adding comments each time the course is
run. This provides a way to pass on ideas and insight to other
instructors that may teach the course.

The Instructor Guide is structured in sequence with the objectives. It
is organized into ten (10) sections, each covering one objective.

The reference text for the course, Application Software for the IBM PC.
Supplemental handouts are included to provide information and skill
practice for the different features in PC-TYPE.

The OUTLINE portion of the Instructor Guide provides direction and
timing for each session.

The instructor should facilitate the sequence and timing of the session
and serve as an advisor should there be any questions.

Each section is divided into the following segments.

OBJECTIVE: Performance objective listed.
REFERENCE: Application Software for the IBM PC.
HANDOUT: Handout(s) to be used in each lesson.
TIMING: The approximate time required to accomplish the
objective. These times will vary, a range of time
for each objective is indicated. The times that
are indicated reflect the time allocated for the
particular lesson. Extra time should be allowed
for hands-on practice.

OUTLINE: Provides the direction and timing for each
objective. The outline sheet is in a split-sheet
format, with the TOPICS listed in the left column
and the TIPS & HINTS in the right column. These
TIPS & HINTS are comments relative to this lesson
that may be helpful to you the instructor. This
portion of the guide should be updated each time
the session is run. These notes are a great help
to the instructor and will assist in making the
guide most useful.
**WORD PROCESSING with PCTYPE**

**Instructor Guide**

<table>
<thead>
<tr>
<th>OBJECTIVE:</th>
<th>Introductions: Self, Students, Course and Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCE:</td>
<td>Application Software for the IBM PC</td>
</tr>
<tr>
<td>HANDOUT:</td>
<td>Registration forms, Course Syllabus, Precourse Quiz</td>
</tr>
<tr>
<td>TIMING:</td>
<td>30 minutes</td>
</tr>
<tr>
<td>OUTLINE:</td>
<td></td>
</tr>
</tbody>
</table>

### TOPIC | TIPS & HINTS
--- | ---
Registration: | Distribute registration forms as required.
Introductions: | Introduce yourself and have students introduce themselves
Introduce course: | Distribute the workbook.
Distribute the course syllabus, review each session's content. | Give them some guidance to help them - such as:
Name
Place of work
Computer background
Why they are word proc
Students read "To the Student on page vii of the text."
Place the responsibility to learn on the students
Distribute the pre-course quiz. Explain that this is the same quiz that will be given at the end of the course.
Ask for questions and concern about the course or schedule.
Review the comments at the bottom of the syllabus.
WORD PROCESSING using PC-TYPE

Course Syllabus

Text: Application Software for the IBM PC

Dates: Xxxxx XX - Xxxxx XX

XX Xxxxx PRE COURSE QUIZ

Starting the PC-TYPE program

GET a file stored on a diskette

The Screen - Text Entry
- Message Line (Function Keys)
- Column Ruler

Margins, Tabs & Indenting

Marking Text - Delete, Copy or Move Text

Cursor Movement

XX Xxxxx REVIEW OF LAST WEEK

Underline and Boldface Text

Spell Check

Search and Replace

Auto Page / User Page

XX Xxxxx REVIEW OF LAST 2 WEEKS

Merging Text Files

Printing Text

Keystroke Macros

Line and Box Drawing

Wrap up - Final Exam
PC-TYPE+

PRE / POST QUIZ

Name ____________________________

1. What does the word wrap function do?

2. What does it mean to "reformat" a paragraph?

3. What is the difference between an indent tab and a normal tab?

4. What is meant by "marking" text?

5. After text is marked, what functions can be performed with it?

6. Explain the difference between User-Page and Auto-Page lines.

7. List the steps necessary to merge two files.

8. If you execute the DOS DIR B: command, what type of information will appear on the screen?

9. What key must to be pressed to bring up the HELP menu?

10. Describe the difference between F9 and SHIFT/F9.
## WORD PROCESSING with PCTYPE

### Instructor Guide

**OBJECTIVE:**
Access and start the PCTYPE Word Processing program.

**REFERENCE:**
Application Software for the IBM PC

**HANDBOUT:**
Worksheet 1

**TIMING:**
10 - 15 minutes

### OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting the program should be easy for most of the students.</td>
<td>There may be some students that haven't been through the Intro course so they may need more direction.</td>
</tr>
<tr>
<td>Review the directory structure and how to get around the system and access the programs.</td>
<td>Be sure to review the process well enough to verify that students understand how to access programs.</td>
</tr>
</tbody>
</table>
Starting the PC-TYPE program

Retrieving a file stored on the Student Data Disk

Margins, Tabs and Indenting

Entering a DATE and TIME Stamp

Reformatting a paragraph

Marking text

Delete, Copy or Move Text

Insert, Delete, Backspace, and Cursor Movement

Saving a file to the Student Data Disk
OBJECTIVE: Retrieve a file stored on a diskette using the GET command.

REFERENCE: Application Software for the IBM PC

HANDOUT: Worksheet 1

TIMING: 10 - 15 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once the program is accessed the retrieval of a file from either A: or B: must be done.</td>
<td>Step through the process of retrieving a file. Be prepared for students to ask DOS related questions.</td>
</tr>
<tr>
<td>Use the &quot;GET&quot; command - be sure that students understand the difference between commands within a program and DOS commands.</td>
<td></td>
</tr>
<tr>
<td>Retrieve the file &quot;MEMODRFT&quot; from the Student Data Disk.</td>
<td></td>
</tr>
<tr>
<td>Also review/show students how to enter a DOS command from the PCTYPE program.</td>
<td></td>
</tr>
</tbody>
</table>
WORD PROCESSING with PCTYPE
Instructor Guide

OBJECTIVE: Define text entry and cursor movement keys used in the PCTYPE program.

REFERENCE: Application Software for the IBM PC

HANDOUT: Worksheet 1
PCTYPE - TIPS (5 pages)

TIMING: 45 - 60 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have students do the worksheet and make notes as to the particular keystrokes required for each feature.</td>
<td>Suggest that the students take notes on the different operations. Students may not initiate note taking on their own.</td>
</tr>
<tr>
<td></td>
<td>Give the students plenty of time to enter text and get familiar with the text entry and cursor movement keys.</td>
</tr>
</tbody>
</table>
CURSOR MOVEMENT

Insert
Delete
Backspace
Ctl / 
Ctl / 
Ctl / 
Ctl / 
Page Up
Page Down
Ctl / Page Up
Ctl / Page Down
Home
End
Ctl / Home
Ctl / End

Pushes characters to the right
Deletes character at cursor position
Deletes character to the left of cursor
One word to the right
One word to the left
Move up one paragraph
Move down one paragraph
Move up one screen
Move down one screen
To the top of document
To the top of document
To beginning of line
To end of line
To top of screen
To bottom of screen

MARGINS, TABS & INDENT

F8 - F8

Cursor appears on the command line
Enter "L" for left margin
Enter "T" for tabs where desired
Enter "R" for right margin
Enter "!" for indent position
MARKING & MANIPULATING TEXT

Alt / L  Marks entire line at cursor

Ctl / L (2)  1st Ctl/L - Begins text marking
2nd Ctl/L - Ends text marking

Alt / D  Deletes marked text

Alt / C  Copies marked text below cursor
Ctl / C  Inserts marked text at cursor location

Alt / M  Moves marked text to below cursor
Ctl / M  Moves marked text to cursor location

TEXT ENHANCEMENTS

Emphasize  F3 - F1 to begin
            F3 - Shift F1 to end

Underline  F3 - F2 to begin
            F3 - Shift F2 to end

Double Strike  F3 - F3 to begin
               F3 - Shift F3 to end

Italics  F3 - F6 to begin
          F3 - Shift F6 to end

Delete PrC  F3 - F8
at cursor

Delete PrC  F3 - F9
on line

Delete all  F3 - F10
PrC in file
CURSOR MOVEMENT

- **Insert**: Pushes characters to the right
- **Delete**: Deletes character at cursor position
- **Backspace**: Deletes character to the left of cursor
- **Ctl /**: One word to the right
- **Ctl /**: One word to the left
- **Ctl /**: Move up one paragraph
- **Ctl /**: Move down one paragraph
- **Page Up**: Move up one screen
- **Page Down**: Move down one screen
- **Ctl / Page Up**: To the top of document
- **Ctl / Page Down**: To the bottom of document
- **Home**: To beginning of line
- **End**: To end of line
- **Ctl / Home**: To top of screen
- **Ctl / End**: To bottom of screen

MARGINS, TABS & INDENT

- **F8 - F8**: Cursor appears on the command line
- Enter "L" for left margin
- Enter "T" for tabs where desired
- Enter "R" for right margin
- Enter "I" for indent position
MARKING & MANIPULATING TEXT

Alt / L  Marks entire line at cursor
Ctl / L (2)  1st Ctl/L - Begins text marking
             2nd Ctl/L - Ends text marking
Alt / D  Deletes marked text
Alt / C  Copies marked text below cursor
Ctl / C  Inserts marked text at cursor location
Alt / M  Moves marked text to below cursor
Ctl / M  Moves marked text to cursor location
Alt / U  Unmark any marked text

TEXT ENHANCEMENTS

Emphasize  F3 - F1 to begin
           F3 - Shift F1 to end
Underline  F3 - F2 to begin
           F3 - Shift F2 to end
Double Strike  F3 - F3 to begin
              F3 - Shift F3 to end
Italics  F3 - F6 to begin
         F3 - Shift F6 to end
Delete PrC at cursor  F3 - F8
Delete PrC on line  F3 - F9
Delete all PrC in file  F3 - F10
INSERTING A DATE STAMP

Place the cursor where you want the date or time

For current date - F8 - F5
For current time - F8 - Shift F5

CHANGING "CASE"

To change from UPPER to lower case mark text & press Ctl / T
To change from lower to UPPER case mark text & press Alt / T

TO USE THE NUMERAL PAD

Hold Ctl / Alt and Press Num Lock
Press Num Lock to cancel.

SPLITTING A LINE

Place cursor at location of desired split.
Press Ctl / ~ to split line.
Remove leading spaces with Backspace or Delete.

PAGE CONTROLS

Ctl / P  Inserts auto paging
Alt / P  Inserts page break
FAULT FINDER

Move cursor to beginning of text.
F8 - F6 to start spell checking.
Alt / Z to continue spell checking.

SEARCH & REPLACE

/PENCIL/PEN/ Search for text between first two slashes
Replace with text between last two slashes

Above example searches text for PENCIL and replaces all occurrences of PENCIL with PEN.

PRINTING

Press Shift / F3
Tab to each selection on screen
Change as desired using up or down arrows or a number key as required.
MERGING A FILE

To merge a file from disk:

Place the cursor where you want to insert text.

Use the "GET" command to retrieve a file.

WRITING A MACRO

A macro is a sequence of keystrokes that are saved and can be repeated with only one keystroke. For example, you could record your name and address as a macro and then re-type the entire address with a single keystroke.

To create a macro

- Start "recording" the macro with an Alt / Y.
- Enter the necessary keystrokes to complete the task.
- Press Alt / Y to stop recording the macro.

For a "repeat" macro - such as underlining a specific word each time it occurs can be done by creating the macro as indicated above and pressing Ctrl / Y rather than Alt / Y to stop recording the macro.
WORD PROCESSING with PCTYPE
instructor Guide

OBJECTIVE: Define the Function Keys displayed on the Message Line of the PCTYPRE screen.

REFERENCE: Application Software for the IBM PC

HANDOUT: N/A

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe or define the F1 - F10 function keys and their purpose.</td>
<td>Have students try the different keys. Again, encourage them to make notes for future use.</td>
</tr>
</tbody>
</table>
**OBJECTIVE:** Define the use of Margins, Tabs & Indenting with the PCTYPE Column Ruler.

**REFERENCE:** Application Software for the IBM PC

**HANDOUT:** PCTYPE - TIPS (5 pages)

**TIMING:** 30 - 45 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate the use of the ruler at the bottom of the screen. Use the file &quot;MEMODRFT&quot; to change the margins and tabs. Discuss and apply the indent feature on the &quot;MEMODRFT&quot; file.</td>
<td>Review the margins, tabs and indenting in general terms. Some of the students may not be familiar with the terms or what they do. Be sure to provide sufficient time to allow them to practice the margins, tabs &amp; indenting</td>
</tr>
</tbody>
</table>
OBJECTIVE: Demonstrate the marking of text to delete, copy, move or enhance text.

REFERENCE: Application Software for the IBM PC

HANDOUT: Worksheet 1
PECTYPE - TIPS (5 pages)
PECTYPE - EDITING EXERCISE

TIMING: 45 - 60 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>As with all of the PCTYPE features, you as the instructor should</td>
<td>This is a good time to give the students the PCTYPE - EDITING EXERCISE.</td>
</tr>
<tr>
<td>demonstrate the feature and then have the students try them either at</td>
<td>This will give them a chance to start using the different features with an</td>
</tr>
<tr>
<td>the same time or after you demo the feature.</td>
<td>existing file.</td>
</tr>
<tr>
<td>Cover the following to mark text, delete, copy and move text:</td>
<td>There are some items that will have to be covered before they can complete</td>
</tr>
<tr>
<td>Alt / L</td>
<td>the exercise.</td>
</tr>
<tr>
<td>Ctrl / L</td>
<td></td>
</tr>
<tr>
<td>Alt / D</td>
<td></td>
</tr>
<tr>
<td>Alt / C</td>
<td></td>
</tr>
<tr>
<td>Ctrl / C</td>
<td></td>
</tr>
<tr>
<td>Alt / M</td>
<td></td>
</tr>
<tr>
<td>Ctrl / M</td>
<td></td>
</tr>
<tr>
<td>Cover the following text enhancements:</td>
<td></td>
</tr>
<tr>
<td>Emphasize</td>
<td></td>
</tr>
<tr>
<td>Underline</td>
<td></td>
</tr>
<tr>
<td>Double strike</td>
<td></td>
</tr>
<tr>
<td>Italics</td>
<td></td>
</tr>
<tr>
<td>Also cover the delete print character (PrC) methods</td>
<td></td>
</tr>
</tbody>
</table>
13 June 1987 General Hospital Floor 13. Room 13. Bed 13 Hopelessville, Minnesota 51313 I am dictating this letter to my new secretary as I am recovering from my recent accident. Below is a detailed account of my accident. Please send my insurance check to me at the hospital. I expect to be back to work within six to eight weeks. It all began as I was working to replace the shingles on my house. I was using a rope and pulley arrangement to hoist a small barrel of nails up to the roof. As the barrel neared the rim of the roof, a stack of bricks fell from the scaffolding next to the house into the barrel. This made the barrel heavier than me. As a result, the barrel came down. My foot got caught in a loop in the rope and it hoisted me up to the roof. On my way up, the barrel hit me on its way down and broke my arm in two places. When the barrel hit the ground, it broke and spilled the nails and bricks on the ground. This made the barrel lighter than me and down I came, breaking both legs as I hit the ground. As I hit the ground, I let go of the rope. This caused the barrel to come down, striking me and breaking my other arm. Very Truly Yors Mr. Lucky Dog
1. GET the file EXERCISE from the instructor diskette.

2. Correct the line spacing to look like the letter below.

3. Do a spell check and correct all spelling errors.

4. Move the two sentences beginning with "Please send my ...." to the bottom of the letter as shown below.

5. Use "Search and Replace" to change all occurrences of the word "barrel" to "keg".

6. Underline the 2nd sentence in the first paragraph.

7. Italicize the words "at the hospital" in the last paragraph.

13 June 1987
General Hospital
Floor 13, Room 13, Bed 13
Hopelessville, Minnesota 51313

I am dictating this letter to my new secretary as I am recuperating from my recent accident. Below is a detailed account of my accident.

It all began as I was working to replace the shingles on my house. I was using a rope and pulley arrangement to hoist a small keg of nails up to the roof. As the keg neared the rim of the roof, a stack of bricks fell from the scaffolding next to the house into the keg. This made the keg heavier than me. As a result, the keg came down. My foot got caught in a loop in the rope and it hoisted me up to the roof. On my way up, the keg hit me on its way down and broke my arm in two places. When the keg hit the ground, it broke and spilled the nails and bricks on the ground. This made the keg lighter than me and down I came, breaking both legs as I hit the ground. As I hit the ground, I let go of the rope. This caused the keg to come down, striking me and breaking my other arm.

Please send my insurance check to me at the hospital. I expect to be back to work within six to eight weeks.

Very Truly Yours

Mr. Lucky Dog
WORD PROCESSING with PCTYPE
Instructor Guide

OBJECTIVE: Demonstrate the use of the PCTYPE Special features.

REFERENCE: Application Software for the IBM PC

HANDOUT: PCTYPE - TIPS (5 pages)

TIMING: 45 - 60 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inserting a date stamp</td>
<td></td>
</tr>
<tr>
<td>Changing from upper case to lower case and vice-versa.</td>
<td></td>
</tr>
<tr>
<td>Use of the number pad</td>
<td>This is not as simple as pressing Num Lock as it is with other programs.</td>
</tr>
<tr>
<td>Splitting a line</td>
<td>Likewise, this is not as straightforward as pressing &lt;Enter&gt;.</td>
</tr>
<tr>
<td>Page controls Ctrl / P</td>
<td></td>
</tr>
<tr>
<td>Alt / P</td>
<td></td>
</tr>
</tbody>
</table>
OBJECTIVE: Demonstrate the use of the Spell Check feature.

REFERENCE: Application Software for the IBM PC

HANDOUT: PCTYPE - TIPS (5 pages)

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

First of all - this is not a normal Spell Checker. Most spell checkers will find a misspelled word and then give possible correct spellings for the word.

This is - as it is called, a "Fault Finder" - not a spell checker in the traditional sense.

Again, demonstrate for them and then have them try it using the EDITING EXERCISE.
WORD PROCESSING with PCTYPE
Instructor Guide

**OBJECTIVE:** Demonstrate the use of a Keystroke Macro.

**REFERENCE:** Application Software for the IBM PC

**HANDOUT:** PCTYPE - TIPS (5 pages)

**TIMING:** 20 - 30 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate the MACRO by creating a MACRO for the Name and Address as indicated in the handout.</td>
<td>Be sure to explain the concept of a Macro. Many students won't have a clue as to what a Macro is and how it can be used.</td>
</tr>
<tr>
<td>Point out that the example in the reference guide is for a &quot;repeating&quot; Macro.</td>
<td></td>
</tr>
</tbody>
</table>
**OBJECTIVE:** Create Line and Box Drawing using PCTYPE.

**REFERENCE:** Application Software for the IBM PC

**HANDOUT:** LINE and BOX DRAWING

**TIMING:** 15 - 20 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the box draw - and demonstrate the process.</td>
<td></td>
</tr>
<tr>
<td>Make sure that they understand that the box draw will overwrite existing data.</td>
<td></td>
</tr>
<tr>
<td>The box draw requires some pre-planning as to where the box will be drawn.</td>
<td></td>
</tr>
<tr>
<td>Review the draw screen and how the box draw characters can be changed to create a different box effect.</td>
<td></td>
</tr>
</tbody>
</table>
COURSE EVALUATION
SKILL ENHANCEMENT TRAINING PROGRAM

COURSE ___________________________ DATE COMPLETED ______

INSTRUCTOR: _______________________

DIRECTIONS: Circle the number on the right to indicate how satisfied you are with the following aspects of the course you just completed. (5 = very satisfied; 1 = not satisfied)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Not Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Course Goals (specific, clearly communicated)</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>2. Content, Subject Matter (organized, appropriate for course goals)</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>3. Written Materials and Resources (up-to-date, easy to read, and/or follow)</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td>4. Support from instructor (quick, courteous, helpful)</td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
</tbody>
</table>

What did you like about the course? __________________________________________

What didn't you like about the course? _________________________________________

What job related topics would you like addressed in future training sessions?

____ I would be interested in a follow-on group of computer classes.

____ A weekday evening would be most convenient. _____AM. _____PM

_____Mon  _____Tues  _____Wed  _____Thurs  _____Fri

____ Saturday morning classes would be most convenient.

Please jot down any other comments you may have below.

3/92
ELECTRONIC SPREADSHEETS USING PCCALC
WORKPLACE LITERACY PROJECT
COMMERCIAL DRIVERS LICENSE

JEAN C. DUNN
Executive Director
Minnesota Teamsters Service Bureau

DR. PAUL BORANIAN
Project Director
Minnesota Teamsters Service Bureau

DR. BILL WARNER
President
Northeast Metro Technical College

JON A. HARBACK
Project Coordinator
Northeast Metro Technical College

Special thanks to Harold Yates, President of the Minnesota Teamsters Joint Council #32 for facilitating the involvement of a number of trucking companies in the Minnesota Teamsters Service Bureau Workplace Literacy Project

1992
ELECTRONIC SPREADSHEETS using PCCALC

Course Description

This three-session Electronic Spreadsheet workshop covers the PC-CALC program in detail. For workshop projects students will create and edit spreadsheets using practical home and business examples.

Students will enter data, including text and formulas into cells, copy cell information from one cell to another, and print the spreadsheet data.

Keystroke Macros will be learned and students will develop a graph using the spreadsheet data.

The skills and concepts used in this workshop are usable in other spreadsheet programs.
ELECTRONIC SPREADSHEETS using PCCALC
Performance Objectives

Access and start PC-CALC, the Spread Sheet program.

Performance will be satisfactory if the student can make appropriate entries on the keyboard to access and start the PC-CALC program.

Load spreadsheet data using a student data diskette and describe the spreadsheet components used with the PCCALC program.

Performance will be satisfactory if the student can retrieve spreadsheet data from a student data diskette and define cells, columns and rows and how they are used in the PC-CALC program.

Enter data, text and formulas into cells to accomplish a simple spreadsheet application.

Performance will be satisfactory if the student can enter spreadsheet data for home finances into the PC-CALC program.

Demonstrate the copying of cell information from one cell to another.

Performance will be satisfactory if the student can copy cell information from one cell to another.

Enter the appropriate keystrokes to print the spreadsheet data.

Performance will be satisfactory if the student can provide a printout of the spreadsheet data for home finances.

Enter the appropriate keystrokes to create a Keystroke Macro.

Performance will be satisfactory if the student can enter the appropriate keystrokes to create a Keystroke Macro.

Develop a graph as output using the spreadsheet data for home finances.

Performance will be satisfactory if the student can enter the appropriate keystrokes to create a graph using the spreadsheet data for home finances.

Save spreadsheet data using a student data diskette.

Performance will be satisfactory if the student can save the spreadsheet data onto a student data diskette.
ELECTRONIC SPREADSHEETS using PCCALC

Instructor Guide

This document is a Guide to be used by the instructor in teaching the Electronic Spreadsheets Using PCCALC Course. It also provides a means for updating the course. The TIPS & HINTS column in the outline segment of each section contains space for adding comments each time the course is run. This provides a way to pass on ideas and insight to other instructors that may teach the course.

The Instructor Guide is structured in sequence with the objectives. It is organized into eight (8) sections, each covering one objective.

The reference text for the course, Application Software for the IBM PC. Supplemental handouts are included to provide information and skill practice for the different features in PCCALC.

The OUTLINE portion of the Instructor Guide provides direction and timing for each session.

The instructor should facilitate the sequence and timing of the session and serve as an advisor should there be any questions.

Each section is divided into the following segments.

OBJECTIVE: Performance objective listed.
REFERENCE: Application Software for the IBM PC.
HANDOUT: Handout(s) to be used in each lesson.
TIMING: The approximate time required to accomplish the objective. These times will vary, a range of time for each objective is indicated. The times that are indicated reflect the time allocated for the particular lesson. Extra time should be allowed for hands-on practice.
OUTLINE: Provides the direction and timing for each objective. The outline sheet is in a split-sheet format, with the TOPICS listed in the left column and the TIPS & HINTS in the right column. These TIPS & HINTS are comments relative to this lesson that may be helpful to you the instructor. This portion of the guide should be updated each time the session is run. These notes are a great help to the instructor and will assist in making the guide most useful.
ELECTRONIC SPREADSHEETS using PCCALC
Instructor Guide

OBJECTIVE: Introductions: Self, Students, Course and Text

REFERENCE: Application Software for the IBM PC

HANDOUT: Registration forms
Course Syllabus
Pre/Post Quiz

TIMING: 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration:</td>
<td>Distribute registration forms as required.</td>
</tr>
<tr>
<td>Introductions:</td>
<td>Introduce yourself and have students introduce themselves</td>
</tr>
<tr>
<td></td>
<td>Give them some guidance to help them - such as:</td>
</tr>
<tr>
<td></td>
<td>NAME</td>
</tr>
<tr>
<td></td>
<td>PLACE OF WORK</td>
</tr>
<tr>
<td></td>
<td>COMPUTER BACKGROUND</td>
</tr>
<tr>
<td></td>
<td>WHY THEY ARE WORD PROC</td>
</tr>
<tr>
<td>Introduce course:</td>
<td>Distribute the workbook.</td>
</tr>
<tr>
<td></td>
<td>Students read &quot;To the Student&quot; on page vii of the text.</td>
</tr>
<tr>
<td></td>
<td>Ask for questions and concerns about the course or schedule.</td>
</tr>
<tr>
<td></td>
<td>Review the comments at the bottom of the syllabus.</td>
</tr>
<tr>
<td>Distribute the course</td>
<td></td>
</tr>
<tr>
<td>syllabus, review each</td>
<td></td>
</tr>
<tr>
<td>sessions content.</td>
<td></td>
</tr>
<tr>
<td>Place the responsibility to learn on the students</td>
<td></td>
</tr>
<tr>
<td>Distribute the pre-course</td>
<td></td>
</tr>
<tr>
<td>quiz. Explain that this is the same quiz that will be given at the end of the course.</td>
<td></td>
</tr>
</tbody>
</table>
REGISTRATION FORM
SKILL ENHANCEMENT TRAINING PROGRAM
Northeast Metro Technical College
in cooperation with
Minnesota Teamsters Service Bureau

Course: ____________________________

1. Start Date ________________ 2. End Date ________________

3. Location: Northeast Metro Technical College ________________
   Other ________________

4. Name ____________________________
   Last First Middle Initial

5. Address ____________________________
   City ____________________________ State ____________ Zip ____________

6. Telephone: Home (__) Work (__) ____________________________

7. Employer ____________________________ Member of Teamster Local # ______

8. Current Job Title ____________________________

9. Sex __ Male ___ Female ___
   10. Age category: ___ 20-25 ___ 26-30 ___ 31-35 ___ 36-45 ___ 46+

11. Ethnic Origin:
    ____ White ___ Native American ___
    ____ Black ___ Asian ___

12. What is your primary spoken language? ___ English ___ Spanish ___ Other

13. Do you have a high school diploma? ___ Yes ___ No
    GED? ___ Yes ___ No

14. Have you had any post high school training? ___ Yes ___ No
    If yes, what type?

    TYPE ____________________________ DEGREE/MAJOR ____________________________
    ____ Community College ____________________________ ____________________________
    ____ Technical College ____________________________ ____________________________
    ____ Four-Year College ____________________________ ____________________________
    ____ Military ____________________________ ____________________________
    ____ Other: ____________________________ ____________________________

15. How did you find out about the course? ____________________________

Northeast Metro Technical College complies with state and federal laws prohibiting discrimination against
students because of age, race, color, creed, religion, national origin, sex, marital status, status with regard
to public assistance or disability.
SPREAD SHEET SOFTWARE using PC-CALC
Course Syllabus

Text: Application Software for the IBM PC
Dates: May 21 & 28 and JUNE 4

21 May
PRE COURSE QUIZ
Starting the PC-CALC program

The Screen
- Data Entry Area
- The Pointer
- Pointer Movement Keys
- Status Line
- Edit Line
- Message Line

Entering Data
Title Locking
Printing Data
- Print Format Options
Using LOAD and SAVE functions

28 May
REVIEW OF LAST WEEK
Worksheet Enhancements
Copying cell information
Using the RANGE command
Using WHAT IF Analysis

4 June
REVIEW OF LAST 2 WEEKS
Keystroke Macros
Developing Graphs as output
Using a split screen
Wrap up - Final Exam
**PC-CALC+**

**PRE / POST QUIZ**

Name __________________________

1. What is entered to start the PC-CALC program?

2. What is another name for the data entry area of the screen?

3. What keystroke brings up the HELP function?

4. What are the three basic types of data that can be entered into a cell?

5. What is the difference between a FORMULA and a FUNCTION?
   - FORMULA __________________________________________
   - FUNCTION _________________________________________

6. What does the key combination Ctrl / G allow you to do?

7. What does a LOAD command accomplish?

8. What does the SAVE command accomplish?

9. What command is used to copy data from one cell to another?
10. What does the ZAP function do:

11. Describe how to see a preview of the report to be printed? In other words, what keystrokes are needed to see a preview?

12. What are the requirements for naming a file that is to be saved?

13. What does the function \texttt{AVG(C2:C8)} provide?

14. How can you adjust the width of a column?

15. What function would the keystrokes / \texttt{B M} perform?

16. What keystrokes will allow you to define a Graph for a spreadsheet?

17. What function would the keystrokes / \texttt{S H} perform?
OBJECTIVE: Access and start PC-CALC, the Spreadsheet program.

REFERENCE: Application Software for the IBM PC

HANDOUT: Worksheet 1 - page 1 & 2

TIMING: 20 -30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take a few minutes to introduce the spreadsheet concept - many of the students may have no idea what a spreadsheet is.</td>
<td>Either use your own explanation or refer to the text. Pages 125 - 128</td>
</tr>
<tr>
<td>The intention here - again is to access the PCCALC program in the PC-CALC directory.</td>
<td>There will have to be a review here. Even though the access is very similar to the PCTYPE program, the process should be reviewed.</td>
</tr>
</tbody>
</table>
1. Start the PC-CALC program. You will be doing this from the DOS prompt and the DOS Shell.

Record the steps below to do that.

From DOS Prompt:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

From the DOS Shell:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Name of the program to run: ____________________________________________

Note: When the application program (PCC.EXE) is first loaded into memory, the spreadsheet form appears and the Copyright notice is at the bottom of the screen.

2. At the "Copyright 1987" screen, press <Enter>.

3. The data entry area is comprised of _____ and ________.

4. At each intersection, there is a ________.

5. The "Pointer" is the hi-lited "Block" that moves from cell to cell as you press the __________________________.

6. The rows are numbered from 1 through ________.

7. The columns are lettered from A through ________.
8. Using the figures, in 6 & 7 above, what is the cell number in the lower right cell location? ____________________

9. Position your pointer at the cell indicated in item 8 above. Try the following keys and describe what they do:

   ↑ ______________________________________________________
   ↓ ______________________________________________________
   ← ______________________________________________________
   → ______________________________________________________
   PgUp ______________________________________________________
   PgDn ______________________________________________________
   Alt/Home ______________________________________________________
   Ctl/Home ______________________________________________________

10. Position the pointer in cell M100, what is the key combination that will place the pointer back to cell A1?

    ______________________________________________________

11. Describe the types of data that can be entered into cells.

    Values ______________________________________________________
    Formulas ______________________________________________________
    Functions ______________________________________________________
    Text ______________________________________________________
ELECTRONIC SPREADSHEETS using PCCALC

Instructor Guide

OBJECTIVE: Load spreadsheet data using a student data diskette and describe the spreadsheet components used with the PCCALC program.

REFERENCE: Application Software for the IBM PC

HANDOUT: Worksheet 1 - page 2 & 3

TIMING: 45 - 60 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce the PCCALC screen</td>
<td></td>
</tr>
<tr>
<td>Discuss the different pieces of the screen -</td>
<td></td>
</tr>
<tr>
<td>rows / columns</td>
<td></td>
</tr>
<tr>
<td>cells</td>
<td></td>
</tr>
<tr>
<td>status line</td>
<td></td>
</tr>
<tr>
<td>data entry area</td>
<td></td>
</tr>
<tr>
<td>pointer</td>
<td></td>
</tr>
<tr>
<td>edit line</td>
<td></td>
</tr>
<tr>
<td>message line</td>
<td></td>
</tr>
<tr>
<td>Have them load a spreadsheet from the student diskette</td>
<td>Be sure to give them time guidance here. This may be the first time they have dealt with a spreadsheet.</td>
</tr>
<tr>
<td>Let them experiment with the spreadsheet.</td>
<td></td>
</tr>
<tr>
<td>List items to try:</td>
<td></td>
</tr>
<tr>
<td>moving pointer</td>
<td></td>
</tr>
<tr>
<td>changing values</td>
<td></td>
</tr>
<tr>
<td>review menus</td>
<td></td>
</tr>
<tr>
<td>discuss HELP screens</td>
<td></td>
</tr>
</tbody>
</table>
12. The STATUS LINE at the top of the screen shows 3 items. List and describe them below.

______________________________

______________________________

______________________________

13. The EDIT LINE is used for ________________________________

14. The MESSAGE LINE has 5 particular keys that appear at the bottom of the screen. Define each of them below.

/ = Menu Options
F1 = Context Help
F2 = General Help
F3 = Edit
F10 = Recalc All

15. After selecting a cell by placing the pointer on it, what key can be pressed to edit a cell once it is selected. ________________________________
ELECTRONIC SPREADSHEETS using PCCALC

Instructor Guide

OBJECTIVE: Enter data, text and formulas into cells to accomplish a simple spreadsheet application.

REFERENCE: Application Software for the IBM PC

HANDOUT: Worksheet 1 - page 2 - 8
Jones Family Budget

TIMING: 1.5 - 2 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now that they have seen a spreadsheet and tried a few things, have them build one.</td>
<td>Build this with them - describe each detail as you build each piece of the spreadsheet.</td>
</tr>
<tr>
<td>Have them build a budget sheet similar to the &quot;Jones Family Budget&quot;</td>
<td>This will get them familiar with the spreadsheet components.</td>
</tr>
</tbody>
</table>
### Jones Family Budget - 1st Qtr. 1992

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>600.00</td>
<td>600.00</td>
<td>600.00</td>
<td>1800.00</td>
</tr>
<tr>
<td>Car</td>
<td>289.00</td>
<td>289.00</td>
<td>289.00</td>
<td>867.00</td>
</tr>
<tr>
<td>N.S.P</td>
<td>66.00</td>
<td>69.00</td>
<td>58.00</td>
<td>193.00</td>
</tr>
<tr>
<td>Minnegasco</td>
<td>48.00</td>
<td>48.00</td>
<td>48.00</td>
<td>144.00</td>
</tr>
<tr>
<td>City Utilities</td>
<td></td>
<td></td>
<td>110.00</td>
<td>110.00</td>
</tr>
<tr>
<td>Sears</td>
<td>12.00</td>
<td>22.00</td>
<td>18.00</td>
<td>52.00</td>
</tr>
<tr>
<td>Visa</td>
<td>50.00</td>
<td>50.00</td>
<td>35.00</td>
<td>135.00</td>
</tr>
<tr>
<td>Insurance</td>
<td>150.00</td>
<td></td>
<td>110.00</td>
<td>260.00</td>
</tr>
<tr>
<td>Food</td>
<td>380.00</td>
<td>350.00</td>
<td>365.00</td>
<td>1095.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1595.00</td>
<td>1428.00</td>
<td>1633.00</td>
<td>4656.00</td>
</tr>
</tbody>
</table>
16. Enter the data as indicated in the sample spreadsheet of the "Jones Family Budget - 1st Qtr. 19921"

a. Enter the title of the spreadsheet starting in cell B1.

b. Enter the months in the respective cells and TOTAL in cell F3. List the steps required to center the titles in the cells B3 thru F3.

c. Enter the titles in cells A5 thru A17. List the keystrokes required to make column A wider to accommodate the text. (Hint: City Utilities has 14 characters.)

d. Enter the values as required for cells B5 thru B13. You only need to enter the dollar amount - not the ".00" for cents.

e. How can the data in B5 be copied to C5 and D5.

f. Enter a FORMULA in cell F5 to add the values in cells B5, C5 and D5. Write the FORMULA below:

g. Copy the formula in F5 to cells F6, F7, thru to F17. List the steps required to do that.
h. Enter a FUNCTION in cell B17 to add the values in cells B5 thru B13. Write the FUNCTION below:

i. Copy the function in cell B17 to cells C17, D17 & F17. List the steps required to do that.

j. Change the March - City Utilities amount to $100.00 and observe the changes. What cells were affected?

k. Use the title locking function to protect the title of the spreadsheet. List the steps required to do that.

l. Save the file to your diskette and name it JONES. What key strokes are needed to do this?

m. What keystrokes will save your file then quit?
17. Enter a function in cell G13 to display the average of the monthly food expense. List the function required below.

18. Enter the label "AVERAGE" in cell G3. This column will display the average of each of the monthly expense items. Why is this label not centered like the others?

19. Center the AVERAGE column of the worksheet. List the keystrokes below that will do that.

20. Copy the function in cell G13 to the cells above it. What range of cells does that include?

21. List the keystrokes required to copy cell G13 into G5 - G12.

22. Insert three columns so that the months of April, May and June can be added to the worksheet. List the keystrokes below that will do that.

23. Insert the data as required for the months of April thru June. Include the column headings and dollar amounts.

   (Hint: Use the copy function to copy the entire column, then make individual cell changes as required.)
Jones Family Budget - April, May, June

<table>
<thead>
<tr>
<th></th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Car</td>
<td>289</td>
<td>289</td>
<td>289</td>
</tr>
<tr>
<td>N.S.P.</td>
<td>54</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>Minnesasco</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Utilities</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Sears</td>
<td>22</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Visa</td>
<td>38</td>
<td>60</td>
<td>55</td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>Food</td>
<td>380</td>
<td>330</td>
<td>395</td>
</tr>
</tbody>
</table>
24. When all values have been added for each month, check the year-end totals. Why aren't they accurate?

________________________________________________________________________

25. Are the amounts in the AVERAGE column accurate? Why not?

________________________________________________________________________

26. Make the appropriate entries to fix the problems identified in 24 and 25 above. Remember to use a COPY function where ever possible. List what changes were required.

________________________________________________________________________

27. If not already done, add or copy the function for the monthly totals E17 thru G17. List the keystrokes required below.

________________________________________________________________________

28. Right justify the titles in cells A5 thru A17. List the keystrokes below that will do that.

________________________________________________________________________

29. Place a "$" on all of the TOTALs at the bottom of the worksheet. List the keystrokes below that will do that.

________________________________________________________________________

30. Place a "$" on all of the TOTAL amounts and the AVERAGE amounts at the right side of the worksheet. List the keystrokes below that will do that.

________________________________________________________________________
31. Adding the $ to the columns made the numbers harder to read. Change all column widths to 11 instead of 9. List the keystrokes below that will do that.

32. What is the Grand TOTAL of the worksheet? (cell 117)

33. What would the Grand TOTAL be IF the Jones’ Housing cost was only $300 per month - instead of $600? Change the amount in cell B5 and copy that change to cells C5 thru G5. List the keystrokes below that will do that.

34. What is the Grand TOTAL after the changes?

35. In cell B19, enter the text "Largest Visa payment"

36. In cell D19, enter a function to indicate the largest Visa payment. List the function below that will do that.

37. In cell B21, enter the text "Smallest Sears payment"

38. In cell D21, enter a function to indicate the smallest Sears payment. List the function below that will do that.

37. Move the title "Jones Family Budget - 1st Qtr. 1992" to cell C1 and change it to: "Jones Family Budget - 1st Half 1992". List the keystrokes below that will do that.
ELECTRONIC SPREADSHEETS using PCCALC

Instructor Guide

**OBJECTIVE:** Demonstrate the copying of cell information from one cell to another.

**REFERENCE:** Application Software for the IBM PC

**HANDOUT:** Worksheet 1 - page 2 - 8

**JONES FAMILY BUDGET**

**TIMING:**

**OUTLINE:**

<table>
<thead>
<tr>
<th><strong>TOPIC</strong></th>
<th><strong>TIPS &amp; HINTS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This segment should be done in the same time frame as entering data for the Jones Family Budget.</td>
<td>In demonstrating the copy cell feature, start out with a single cell and then show the possibility of doing multiple cells.</td>
</tr>
<tr>
<td>Review the steps required to copy cell information - point out that it doesn't matter if the cell info is text or a formula.</td>
<td></td>
</tr>
</tbody>
</table>
**OBJECTIVE:** Enter the appropriate keystrokes to print the spreadsheet data.

**REFERENCE:** Application Software for the IBM PC

**HANDOUT:** N/A

**TIMING:** 10 - 15 minutes

**OUTLINE:**

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no particular handout for this segment. The print is done from the menu and is rather straightforward.</td>
<td>The printers will probably have to be shared. You will have to move the cable from one computer to the next.</td>
</tr>
</tbody>
</table>
ELECTRONIC SPREADSHEETS using PCCALC
Instructor Guide

OBJECTIVE: Enter the appropriate keystrokes to create a Keystroke Macro.

REFERENCE: Application Software for the IBM PC

HANDOUT: PC-CALC - MACROS

TIMING: 20 - 30 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce Keystroke Macros much like the intro done in the PCTYPE segment.</td>
<td>Even though the students have been introduced to Macros in PCTYPE, they will have to be reminded.</td>
</tr>
<tr>
<td>Discuss the uses of a Macro in a spreadsheet. One use is to create the month column labels using a Macro.</td>
<td></td>
</tr>
<tr>
<td>This way, the month headings can be entered using one keystroke. This of course assumes that you will want the same month headings used for each worksheet.</td>
<td></td>
</tr>
<tr>
<td>For the sample Macro, have the students create a Macro that will delete all cells in one row of the worksheet.</td>
<td></td>
</tr>
</tbody>
</table>

Procedure

1. Place pointer in the left column
2. Start Macro (Alt/Y)
3. Clear/delete all characters in cell
4. Move pointer one cell to the right
5. Repeat 3 & 4 to clear all cells
6. End Macro (Alt/Y)

Have the students build the Macro as you demo and show them how.
Give them time to test and rebuild it as required.
For this part of the exercise you will identify the keystrokes required to create a macro. The macro we want to create will clear all of the cells in one row of a worksheet.

Place the pointer in cell A5

List the keystrokes required in the steps below to create a macro that would do the following:

a - start creating a macro

b - clear or erase the info in cell A5

c - move the pointer one cell to the right

d - clear the cell

e - (repeat step 2 & 3 until all cells are empty)

f - return the pointer to column A

g - move the pointer down one row

h - end the macro

i - key used to start macro

j - description of macro

Execute the macro by pressing ALT /
ELECTRONIC SPREADSHEETS using PCCALC
Instructor Guide

OBJECTIVE: Develop a graph as output using the spreadsheet data for home finances.

REFERENCE: Application Software for the IBM PC

HANDOUT: PC-CALC - CHARTS and GRAPHS

TIMING: 1 - 1.5 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the graphing process either via the book or with your own techniques.</td>
<td>For this overview, discuss the types of graphs and their components. Don't assume that the students know anything about charts and graphs.</td>
</tr>
<tr>
<td>This program allows one (1) variable to be plotted per chart.</td>
<td></td>
</tr>
<tr>
<td>Follow the procedure in the handout to build the chart.</td>
<td></td>
</tr>
<tr>
<td>Have students build the chart as you do during the demo session.</td>
<td>Give them plenty of time to experiment with the chart.</td>
</tr>
</tbody>
</table>
This next portion of the worksheet deals with creating a chart from the data. PC-CALC gives you the capability of charting one value or variable per chart. For this exercise, you will chart the information for the 6 months of expenses for the NSP category.

Follow the procedure below to do this.

1. Load the spreadsheet that shows the 6 month budget for the Jones family.

2. When you build a chart or graph, you will need the following information. Fill in the blanks below to use when building a chart.

   TITLE of graph: _____________________________________________
   category HEADING: __________________________________________
   category labels: _____________________________________________
   values HEADING: ____________________________________________
   row for DOLLARS: __________________________________________
   Type of graph: ____________________________
                  (Horizontal Bar / Line / Pie / Scatter / Vertical Bar)
   Save definition: _____________________________________________
   path to save graph: _________________________________________
   name of file: ______________________________________________

3. Using the information above, build a vertical bar chart. Enter the keystrokes required in the space below.
4. At the chart screen - what do the following keys do?

S
L
H
P

5. Try the various types of charts available.

6. What is the difference between a regression line "R" and a number used for a "smoothed average"?

7. Press <ESC> and go back to the main spreadsheet. Press <Enter> once to access the / for the menu.

8. Now - view the chart again without building it. To do this, select: (C)hange/run saved graphs from the Print/Graph menu.

   Why is this table empty?

9. Press <ESC> to go back to main menu and rebuild the chart - this time save the definition information in table.

10. View the chart again, then press <ESC> and go back to the main spreadsheet. Press <Enter> once to access the / for the menu.

11. This time - when you select (C)hange/run saved graphs from the Print/Graph menu, there should be chart information in the GRAPH DATA TABLE.

   NOTE: At this screen, you have the ability to change any of the information in the table.

12. When finished changing information - press / to access the Table Options menu. Press "E" to execute (view) the file.

   Save the information to the same file name - and the chart appears.
ELECTRONIC SPREADSHEETS using PCCALC
Instructor Guide

OBJECTIVE: Save spreadsheet data using a student data diskette.

REFERENCE: Application Software for the IBM PC

HANDOUT: N / A

TIMING: 10 - 15 minutes

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no handout for this segment. The SAVE is found in the menu (/).</td>
<td>Explain the differences in various application programs.</td>
</tr>
<tr>
<td>Point out that the save is different than the save in PCTYPE.</td>
<td>The students - once exposed to a &quot;SAVE&quot; such as in PCTYPE tend to try the same steps in saving a PCCALC file.</td>
</tr>
<tr>
<td>Select MENU to save the file.</td>
<td></td>
</tr>
<tr>
<td>After saving - go to DOS to show them that the file was save with a .PCC as an extension for the file name.</td>
<td></td>
</tr>
</tbody>
</table>
1. What is entered to start the PC-CALC program?

2. What is another name for the data entry area of the screen?

3. What keystroke brings up the HELP function?

4. What are the three basic types of data that can be entered into a cell?

5. What is the difference between a FORMULA and a FUNCTION:
   FORMULA
   FUNCTION

6. What does the key combination Ctrl/G allow you to do?

7. What does a LOAD command accomplish?

8. What does the SAVE command accomplish?

9. What command is used to copy data from one cell to another?
COURSE EVALUATION
SKILL ENHANCEMENT TRAINING PROGRAM

COURSE __________________________ DATE COMPLETED ______

INSTRUCTOR: __________________________

DIRECTIONS: Circle the number on the right to indicate how satisfied you are with the following aspects of the course you just completed. (5 = very satisfied; 1 = not satisfied)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Not Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Course Goals (specific, clearly communicated)</td>
<td>1  2  3</td>
<td>4  5</td>
</tr>
<tr>
<td>2. Content, Subject Matter (organized, appropriate for course goals)</td>
<td>1  2  3</td>
<td>4  5</td>
</tr>
<tr>
<td>3. Written Materials and Resources (up-to-date, easy to read, and/or follow)</td>
<td>1  2  3</td>
<td>4  5</td>
</tr>
<tr>
<td>4. Support from instructor (quick, courteous, helpful)</td>
<td>1  2  3</td>
<td>4  5</td>
</tr>
</tbody>
</table>

What did you like about the course? _________________________________________

What didn’t you like about the course? _______________________________________

What job related topics would you like addressed in future training sessions?

___ I would be interested in a follow-on group of computer classes.

___ A weekday evening would be most convenient. ___AM ___PM

___Mon ___Tues ___Wed ___Thurs ___Fri

___ Saturday morning classes would be most convenient.

Please jot down any other comments you may have below.

3/92
**COURSE EVALUATION**
**SKILL ENHANCEMENT TRAINING PROGRAM**

COURSE __________________________ DATE COMPLETED ______

INSTRUCTOR: _______________________

**DIRECTIONS:** Circle the number on the right to indicate how satisfied you are with the following aspects of the course you just completed. (5 = very satisfied; 1 = not satisfied)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Not Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Course Goals (specific, clearly communicated)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Content, Subject Matter (organized, appropriate for course goals)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Written Materials and Resources (up-to-date, easy to read, and/or follow)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Support from instructor (quick, courteous, helpful)</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

What did you like about the course? ___________________________________________

What didn't you like about the course? _________________________________________

What job related topics would you like addressed in future training sessions?

__________________________________________

___ I would be interested in a follow-on group of computer classes.

___ A weekday evening would be most convenient. ___AM ___PM

___Mon ___Tues ___Wed ___Thurs ___Fri

___ Saturday morning classes would be most convenient.

Please jot down any other comments you may have below.

3/92
WORKPLACE LITERACY PROJECT

CALCULATOR MATH

WORKPLACE LITERACY RESOURCE CENTER
1-800-832-4916

MINNESOTA TEAMSTERS SERVICE BUREAU
NORTHEAST METRO TECHNICAL COLLEGE
WORKPLACE LITERACY PROJECT
COMMERCIAL DRIVERS LICENSE

JEAN C. DUNN
Executive Director
Minnesota Teamsters Service Bureau

DR. PAUL BORANIAN
Project Director
Minnesota Teamsters Service Bureau

DR. BILL WARNER
President
Northeast Metro Technical College

JON A. HARBACK
Project Coordinator
Northeast Metro Technical College

Special thanks to Harold Yates, President of the Minnesota Teamsters Joint Council #32 for facilitating the involvement of a number of trucking companies in the Minnesota Teamsters Service Bureau Workplace Literacy Project

1992
CALCULATOR MATH

Course Description

The CALCULATOR-MATH course is designed to provide an opportunity to review math skills and become more familiar with essential calculator operations. Use of the calculator will be emphasized throughout the course.

The six sessions are structured as indicated below and include the topics described.

1. Students will read, write and compare decimal numbers, decimal fractions, and proper fractions. Reading and writing percentages is also practiced.

2. Students will practice adding, subtracting, multiplying and dividing decimal numbers. Use of estimating and rounding will be applied.

3. Addition, subtraction, multiplication and division of fractions and mixed numbers will be practiced. Students will also estimate and solve problems using mixed numbers and fractions.

4. The concept of finding parts of a whole are practiced. Students will work with percentages and interest rates, and will interchange percents, decimals and fractions.

5. Using measurements - both English and metric units is covered. Problems related to area and volume will be solved. Students will also practice estimating distances and weights.

6. Analyzing data using charts and graphs is the main topic. Other skills learned are interpolating, extrapolating, determining the median and computing a ratio.
CALCULATOR MATH

Performance Objectives

OBJECTIVES:

Upon completion of this course, the student will be able to:

- Read, write and compare decimal numbers, decimal fractions, proper fractions and percentages.
- Add, subtract, multiply and divide decimal numbers.
- Use estimating and rounding as applied to decimal numbers.
- Add, subtract, multiply and divide fractions and mixed numbers.
- Work with percentages and interest rates.
- Convert numbers between percents, decimals and fractions.
- Estimating distances and weights using English and metric measurements.
- Use English and metric measurements relating to area and volume.
- Analyze data using charts and graphs.

CRITERIA:

Performance will be satisfactory if the student can achieve a score of 80% or better on an appropriate exam.
CALCULATOR MATH
Course Syllabus

Text: MATH SKILLS THAT WORK
Dates: Xxxxx XX, XX, XX
Xxxxx XX, XX, XX

XX Xxxxx NUMBERS SMALLER THAN ONE
XX Xxxxxx DECIMALS
XX Xxxxxx FRACTIONS
XX Xxxxxx PERCENTS
XX Xxxxxx TOPICS IN MEASUREMENT
XX Xxxxxx DATA ANALYSIS

SUGGESTIONS:
Take the responsibility to learn:
Ask questions - the only dumb question is the one
that isn't asked.
Study the text, read the material and complete the
Workbook exercises.
CALCULATOR MATH
Instructor Guide

This document is a Guide to be used by the instructor in teaching the CALCULATOR MATH Course. It also provides a means for updating the course. The TIPS & HINTS column in the outline segment of each section contains space for adding comments each time the course is run. This provides a way to pass on ideas and insight to other instructors that may teach the course.

The instructor Guide is structured in sequence with the objectives and with the text MATH SKILLS THAT WORK. It is organized into nine (9) sections, each covering one objective and a portion of the text. Note that there are 9 objectives to be covered in six sessions.

The reference text for the course, as well as being the Student Workbook, is MATH SKILLS THAT WORK. The text/workbook has six Units and corresponds to the six class sessions. Supplemental handouts are included to provide extra skill practice in addition to the exercises in the workbook.

The workbook is designed to be self-paced. Students work independently on each portion of the workbook, within a time frame determined by the instructor. The OUTLINE portion of the Instructor Guide provides direction and timing for each session.

The instructor should facilitate the sequence and timing of the session and serve as an advisor should there be any questions.

This guide is divided into ten (10) sections, one objective per section. Each section is divided into the following segments.

**OBJECTIVE:** Performance objective listed - 1 through 10.

**REFERENCE:** Pages assigned from MATH SKILLS THAT WORK.

**HANDOUT:** Supplemental handout(s) to be used in lesson.

**TIMING:** The approximate time required to accomplish the objective. These times will vary, a range of time for each objective is indicated.

**OUTLINE:** Provides the direction and timing for each objective. The outline sheet is in a split-sheet format, with the TOPICS listed in the left column and the TIPS & HINTS in the right column. These TIPS & HINTS are comments relative to this lesson that may be helpful to you the instructor. This portion of the guide should be updated each time the session is run. These notes are a great help to the instructor and will assist in making the guide most useful.
### OBJECTIVE:
Introductions: Self, Students, Course and Text

### REFERENCE:
MATH SKILLS THAT WORK

### HANDOUT:
Registration forms
Course Syllabus

### TIMING:
30 minutes

### OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration:</td>
<td>Distribute registration forms as required.</td>
</tr>
<tr>
<td>Introductions:</td>
<td>Introduce yourself and have students introduce themselves</td>
</tr>
<tr>
<td></td>
<td>Students read &quot;To the Student&quot; on page vii of the text.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Introduce course:</td>
<td>Distribute the workbook.</td>
</tr>
<tr>
<td></td>
<td>Distribute the course syllabus, review each sessions content.</td>
</tr>
<tr>
<td></td>
<td>Place the responsibility to learn on the students</td>
</tr>
</tbody>
</table>
CALCULATOR MATH
Instructor Guide

OBJECTIVE: Read, write and compare decimal numbers, decimal fractions, proper fractions and percentages.

REFERENCE: MATH SKILLS THAT WORK
Unit One - Numbers Smaller Than One

HANDOUT:

TIMING: 2 - 2.5 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbers smaller than one - pages 1-3</td>
<td></td>
</tr>
<tr>
<td>Decimal Fractions - pages 4-5</td>
<td></td>
</tr>
<tr>
<td>Writing Zero as a place holder - page 6</td>
<td></td>
</tr>
<tr>
<td>Decimal Fractions &amp; Mixed Decimals - pages 7-9</td>
<td></td>
</tr>
<tr>
<td>Fractions, Writing and Simplifying - page 10-12</td>
<td></td>
</tr>
<tr>
<td>Fractions, Raising to Higher Terms, Comparing - 13-17</td>
<td></td>
</tr>
<tr>
<td>Mixed Numbers &amp; Improper Fractions - 18-19</td>
<td></td>
</tr>
<tr>
<td>Percentages - 20-25</td>
<td></td>
</tr>
<tr>
<td>Estimating - 28-29</td>
<td></td>
</tr>
</tbody>
</table>

FOCUS ON CALCULATORS
CALCULATOR MATH
instructor Guide

OBJECTIVE: Add, subtract, multiply and divide decimal numbers.

REFERENCE: MATH SKILLS THAT WORK
           Unit Two - Decimals

HANDOUT:

TIMING: 2.5 2 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decimals - introduction</td>
<td></td>
</tr>
<tr>
<td>- pages 32-33</td>
<td></td>
</tr>
<tr>
<td>Estimating and rounding</td>
<td></td>
</tr>
<tr>
<td>- pages 34-39</td>
<td></td>
</tr>
<tr>
<td>FOCUS ON CALCULATORS 40-43</td>
<td></td>
</tr>
<tr>
<td>Add, Subtract</td>
<td></td>
</tr>
<tr>
<td>Multiply &amp; Divide</td>
<td></td>
</tr>
<tr>
<td>Adding &amp; Subtracting Decimals</td>
<td></td>
</tr>
<tr>
<td>- pages 44-47</td>
<td></td>
</tr>
<tr>
<td>Multiplying Decimals</td>
<td></td>
</tr>
<tr>
<td>- pages 50-54</td>
<td></td>
</tr>
<tr>
<td>Dividing Decimals</td>
<td></td>
</tr>
<tr>
<td>pages 56-67</td>
<td></td>
</tr>
<tr>
<td>ON THE JOB</td>
<td></td>
</tr>
<tr>
<td>pages 55, 59, 60, 62</td>
<td></td>
</tr>
<tr>
<td>IN YOUR LIFE</td>
<td></td>
</tr>
<tr>
<td>pages 61, 66</td>
<td></td>
</tr>
<tr>
<td>SKILL REVIEW</td>
<td></td>
</tr>
<tr>
<td>page 68</td>
<td></td>
</tr>
</tbody>
</table>

It may be a good idea for continuity if the add, subtract, multiply and divide are done together - then do the ON THE JOB and the IN YOUR LIFE exercises separately.
CALCULATOR MATH
Instructor Guide

OBJECTIVE: Use estimating and rounding as applied to decimals.

REFERENCE: MATH SKILLS THAT WORK
Unit Three - Fractions

HANDOUT: 

TIMING: 1 - 1.5 hour

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction pages 70-71</td>
<td></td>
</tr>
<tr>
<td>Estimating with Fractions - pages 72-75</td>
<td></td>
</tr>
<tr>
<td>FOCUS ON CALCULATORS 76 - 77</td>
<td></td>
</tr>
<tr>
<td>Mixed Numbers</td>
<td></td>
</tr>
</tbody>
</table>
CALCULATOR MATH
Instructor Guide

OBJECTIVE: Add, subtract, multiply and divide fractions and mixed numbers.

REFERENCE: MATH SKILLS THAT WORK
Unit Three - Fractions

HANDOUT:

TIMING: 2 - 2.5 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding &amp; subtracting Like Fractions pages 78-84</td>
<td></td>
</tr>
<tr>
<td>Adding &amp; subtracting Unlike Fractions pages 86-88</td>
<td></td>
</tr>
<tr>
<td>Adding &amp; subtracting Mixed Numbers pages 90-91</td>
<td></td>
</tr>
<tr>
<td>Multiplying Fractions &amp; Mixed Numbers pages 94-97</td>
<td></td>
</tr>
<tr>
<td>Dividing Fractions &amp; Mixed Numbers pages 100-103</td>
<td></td>
</tr>
</tbody>
</table>

ON THE JOB
- pages 89, 93, 99

IN YOUR LIFE
- pages 85, 92, 98

Again - do the ON THE JOB and the IN YOUR LIFE exercises separately.
CALCULATOR MATH
Instructor Guide

OBJECTIVE: Work with percentages and interest rates.

REFERENCE: MATH SKILLS THAT WORK
Unit Four - Percents

HANDOUT:

TIMING: 2 - 1.5 Hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction pages 106-107</td>
<td></td>
</tr>
<tr>
<td>Percent problems and the Percent Circle pages 108-111</td>
<td></td>
</tr>
<tr>
<td>FOCUS ON CALCULATORS 112-117</td>
<td>This is a more extensive exercise with the calculator. Verify students understanding of each section.</td>
</tr>
</tbody>
</table>
CALCULATOR MATH
Instructor Guide

OBJECTIVE: Convert numbers between percents, decimals and fractions.

REFERENCE: MATH SKILLS THAT WORK
Unit Four - Percents

HANDOUT:

TIMING: 2 - 2.5 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing Percents to Decimals and Fractions pages 118-121</td>
<td>This should be done here, immediately following the related exercises</td>
</tr>
<tr>
<td>ON THE JOB - page 119</td>
<td></td>
</tr>
<tr>
<td>Finding the Part, Percent and the Whole - pages 122-127</td>
<td>Likewise, do these immediately following the related exercises</td>
</tr>
<tr>
<td>ON THE JOB - page 128</td>
<td></td>
</tr>
<tr>
<td>IN YOUR LIFE - page 129</td>
<td></td>
</tr>
<tr>
<td>Understanding Simple Interest</td>
<td></td>
</tr>
<tr>
<td>ON THE JOB &amp; IN YOUR LIFE pages 132-137</td>
<td></td>
</tr>
<tr>
<td>SKILL REVIEW - page 138</td>
<td></td>
</tr>
</tbody>
</table>
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REFERENCE: MATH SKILLS THAT WORK
Unit Five - Topics in Measurement

HANDOUT:

TIMING: 1.5 - 2 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introducing Measurement - pages 142-143</td>
<td></td>
</tr>
<tr>
<td>IN YOUR LIFE - page 146</td>
<td></td>
</tr>
<tr>
<td>Measuring Centimeters - page 147</td>
<td></td>
</tr>
<tr>
<td>ON THE JOB - page 148</td>
<td></td>
</tr>
<tr>
<td>IN YOUR LIFE - page 149</td>
<td></td>
</tr>
<tr>
<td>ON THE JOB - page 150-151</td>
<td></td>
</tr>
<tr>
<td>IN YOUR LIFE - page 152</td>
<td></td>
</tr>
<tr>
<td>Reading a Weather Thermometer - page 153</td>
<td></td>
</tr>
</tbody>
</table>
OBJECTIVE: Use English and metric measurements relating to area and volume.

REFERENCE: MATH SKILLS THAT WORK
Unit Five - Topics in Measurement

HANDOUT:

TIMING: 1 hour

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Area</td>
<td>page 156</td>
</tr>
<tr>
<td>IN YOUR LIFE</td>
<td>page 157</td>
</tr>
<tr>
<td>Intro to Volume</td>
<td>page 158</td>
</tr>
<tr>
<td>IN YOUR LIFE</td>
<td>page 159</td>
</tr>
<tr>
<td>SKILL REVIEW</td>
<td>page 160</td>
</tr>
</tbody>
</table>
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Instructor Guide

OBJECTIVE: Analyze data using charts and graphs.

REFERENCE: MATH SKILLS THAT WORK
Unit Six - Data Analysis

HANDOUT:

TIMING: 2.5 - 3 hours

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Charts and Graphs pgs 160-161</td>
<td></td>
</tr>
<tr>
<td>Numerical Data Interpolation &amp; Extrapolation</td>
<td></td>
</tr>
<tr>
<td>ON THE JOB - page 164</td>
<td></td>
</tr>
<tr>
<td>Language of Data Analysis - page 165-168</td>
<td></td>
</tr>
<tr>
<td>Reading a Bar Graph - pg 168</td>
<td></td>
</tr>
<tr>
<td>ON THE JOB - page 169</td>
<td></td>
</tr>
<tr>
<td>Reading a Line Graph - pg 170</td>
<td></td>
</tr>
<tr>
<td>IN YOUR LIFE - page 171</td>
<td></td>
</tr>
<tr>
<td>Reading a Circle Graph - page 72</td>
<td></td>
</tr>
<tr>
<td>IN YOUR LIFE - page 173</td>
<td></td>
</tr>
<tr>
<td>Using Data Sources &amp; Drawing Conclusions - 174-177</td>
<td></td>
</tr>
<tr>
<td>Drawing a Graph - page 17</td>
<td></td>
</tr>
<tr>
<td>ON THE JOB - page 179</td>
<td></td>
</tr>
<tr>
<td>POST TEST - page 180</td>
<td></td>
</tr>
</tbody>
</table>

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CALCULATOR MATH
Instructor Guide

OBJECTIVE:

REFERENCE:

HANDOUT:

TIMING:

OUTLINE:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>TIPS &amp; HINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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COURSE EVALUATION
SKILL ENHANCEMENT TRAINING PROGRAM

COURSE _______________________________ DATE COMPLETED ______

INSTRUCTOR: __________________________

DIRECTIONS: Circle the number on the right to indicate how satisfied you are with the following aspects of the course you just completed. (5 = very satisfied; 1 = not satisfied)

1. Course Goals
   (specific, clearly communicated)
   Not Satisfied 1 2 3 4 5
   Very Satisfied

2. Content, Subject Matter
   (organized, appropriate for course goals)
   Not Satisfied 1 2 3 4 5
   Very Satisfied

3. Written Materials and Resources
   (up-to-date, easy to read, and/or follow)
   Not Satisfied 1 2 3 4 5
   Very Satisfied

4. Support from instructor
   (quick, courteous, helpful)
   Not Satisfied 1 2 3 4 5
   Very Satisfied

What did you like about the course? ________________________________

What didn't you like about the course? ________________________________

What job related topics would you like addressed in future training sessions?

____ I would be interested in a follow-on group of computer classes.

____ A weekday evening would be most convenient. ___AM  ___PM

   ___Mon  ___Tues  ___Wed  ___Thurs  ___Fri

____ Saturday morning classes would be most convenient.

Please jot down any other comments you may have below.

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