

Course: CS 110: Introduction to Computer Literacy
Module: 1 – The Basics

Introduction: I will be using my CS 110 class. I am preparing to teach this course online, so I must make sure it meets all learning styles and adapts to self-learning. I am a firm believer in constructivist philosophy, so I try to lead the students to evaluate their own learning and put their belief system together while learning about computers and computer science. This course isn't necessarily an easy class to teach even in a face-to-face setting.

Required Text:

Beekman, George, Computer Confluence – Exploring Tomorrow's Technology. Seventh edition. Pearson/Prentice Hall.

University-Mandated Course Objectives:

<i>Upon successful completion of the course a student will have the skills to:</i>	<i>Graduate Outcome in Catalog</i>
1. Explain the components of a personal computer and associate peripherals.	1,7,9
2. Operate a personal computer using the Windows operating system.	7,9
3. Use a word processing software package and be able to produce basic correspondence and college level research papers.	1,7,9
4. Use a spreadsheet program for fundamental task such as budgeting, charting, and financial analysis.	1,2,7,9
5. Understand and discuss components of computer systems, networks, and operational issues.	1,6,7,9
6. Use a presentation software package to produce a simple presentation.	1,7,9
7. Understand key terms.	1,2,7,9
8. Use e-mail to communicate with others.	1,7,9

This module will meet course objectives 1, 3, 5, and 7 through the various activities.

Module 1 Objectives

After completing this module, you should be able to:

- Describe the basic parts of a PC and how they work together
- Explain the relationship between hardware and software
- Use a keyboard and mouse to enter and edit text
- Explain how files are organized within a PC
- Explain how the Internet extends the functionality of a PC

- Describe some of the risks of Internet use and how to minimize them
- Describe briefly the history of the computer
- Understand key terms of beginning computing

Source: *Computer Confluence*

Module Activities:

Pre-Assessment of Computer Knowledge & Skills

Presentation: This short survey will be presented through the Survey Module in WebCT to assess the student's knowledge about computers and WebCT as they come into the class.

Please rate your answers from 1 to 5 with 1 being least able and 5 being most able.

General Computer Skills

1. I'm familiar with basic computer system parts and concepts (e.g. hard drive, RAM, etc.)
1 2 3 4 5
2. I'm able to use Help menus to find answers to my questions
1 2 3 4 5
3. I'm able to understand file extensions and differences between file types (e.g. .doc, .gif., .html, .ppt., , mp3., rm., etc.)
1 2 3 4 5
4. I'm able to shut down a computer appropriately
1 2 3 4 5
5. I'm able to perform a safe reboot of the operating system with keystrokes
1 2 3 4 5
6. I understand the difference between closing/minimizing/hiding windows and quitting a program
1 2 3 4 5
7. I'm able to use the mouse right-click menu functions
1 2 3 4 5

File Management Skills

1. I'm able to navigate through files and directories (e.g. using Windows Explorer)
1 2 3 4 5
2. I'm able to organize, copy and paste files in directories
1 2 3 4 5
3. I'm able to move unwanted files into my recycle bin or trash can and delete them permanently from my hard drive
1 2 3 4 5

Word Processing Skills

1. I'm able to edit, copy, cut and paste a block of text or selected objects
1 2 3 4 5
2. I'm able to use undo/redo functions
1 2 3 4 5
3. I'm able to save, print and preview documents
1 2 3 4 5
4. I'm able to select and change fonts sizes and types, styles (e.g. boldface, italics, underlining, etc.)
1 2 3 4 5
5. I'm able to create itemized lists (e.g. bullets, numbered lists)
1 2 3 4 5

Printing Skills

1. I'm able to change printer parameters like page numbers, paper orientation, margins and proportions, etc.
1 2 3 4 5

Online Communication: Browser and Navigation Skills

1. I'm able to use the browser basic commands to surf the Internet
1 2 3 4 5

2. I'm able to compose, send, receive, reply to and forward email messages
1 2 3 4 5
3. I'm able to attach/detach documents to/from email messages
1 2 3 4 5
4. I'm able to use search engines to locate desired information
1 2 3 4 5
5. I understand the difference between Search Engines (e.g. Google) and Directories (e.g. Yahoo)
1 2 3 4 5
6. I understand that some copyright restrictions apply to computer software and Internet documents
1 2 3 4 5
7. I understand how I can use gathered information from the Internet without violating copyright laws
1 2 3 4 5
8. I'm able to demonstrate an understanding of what constitutes plagiarism
1 2 3 4 5
9. I know basic steps to ensure your online privacy and computer security
1 2 3 4 5

WebCT Skills

1. I'm able to login & logout of WebCT.
1 2 3 4 5
2. I'm able to read announcements and view calendar events in WebCT.
1 2 3 4 5
3. I'm able to access, read, reply to and attach files to messages in the Discussion Board
1 2 3 4 5
4. I'm able to send email (and attach files to the email) in WebCT.

1 2 3 4 5

Adapted from: http://www.clt.odu.edu/oso/index.php?src=pe_comp_lit (Retrieved November 6, 2006)

Read Chapter 0 in your textbook

Presentation: n/a

Meets objective: ALL

Meets course objective(s): Explain the components of a personal computer and associated peripherals; understand and discuss components of computer systems, networks, and operational issues.

Source: *Computer Confluence*

PowerPoint Lecture

Presentation: A PowerPoint has been created with a voice lecture. It is presented through a java-based interface within the course website in WebCT.

Meets module objective(s): ALL as it presents all objectives in an auditory and visual style.

Meets course objective(s): Explain the components of a personal computer and associated peripherals; understand and discuss components of computer systems, networks, and operational issues.

Source: *Computer Confluence*

Key Terms

Presentation: Created in a crossword puzzle to reinforce terms and definitions. The student can complete a crossword puzzle in a web-interface using Java. Once that puzzle is completed, the puzzle can be created in a new way simply by clicking on "start over." The puzzle is then completely reconstructed possibly using different terms.

Meets module objective(s): Understand key terms of beginning computing, Use a keyboard and mouse to enter and edit text

Meets course objective(s): Explain the components of a personal computer and associated peripherals; understand and discuss components of computer systems, networks, and operational issues; understand key terms.

application program (application)	Software tool that allows a computer to be used for specific purposes.
back-up copy	A copy of a file created as insurance against the loss of the original.
back-up media	Disks, CD-Rs, and other technologies to hold backup files and to save computer storage space.
button	A hot spot on a screen that responds to mouse clicks. A button can be programmed to perform one of many tasks, such as opening a dialog box or launching an application.

CD-ROM drive	A common optical drive in computers that can read data from CD-ROM disks.
CD-RW drive	A disk drive that can read and write on rewritable optical disks.
central processing unit (CPU)	Part of the computer that processes information, performs arithmetic calculations, and makes basic decisions based on information values.
click	The action of pressing a button on a mouse.
Clipboard	A word processing program text editing tool for temporarily storing chunks of text and other data.
copy	A word processing program text editing tool that allows you to make a copy of a set of words or data and place the copy elsewhere in the same or a different document.
cut	A word processing program text editing tool that allows you to delete a set of words or data; often used with the copy function to move text around.
diskettes (disks)	Small, magnetically sensitive, flexible plastic wafers housed in a plastic case, used as a storage device.
document	A file, such as a term paper or chart created with applications.
double-click	To click a mouse button twice in rapid succession.
drag	To move the mouse while holding the mouse button down. Used for moving objects, selecting text, drawing, and other tasks.
drag-and-drop	A word processing program text editing tool that allows you to move a selected block of text from one location to another.
DVD drive	An optical disk drive that can read high-capacity DVD disks.
electronic mail (email)	Allows Internet users to send mail messages, data files, and software programs to other Internet users and to users of most commercial networks and online services.
file	An organized collection of related information stored in a computer- readable form.
file compression	The process of reducing the size of a file so that you can fit more files into the same amount of disk space.
file decompression	The process of restoring a compressed file back to its original state.
Find	A command used to locate a particular word, string of characters, or formatting in a document.
find-and-replace (search and replace)	A word processing program text editing tool that allows you to make repetitive changes throughout a document.
folder	A container for files and other folders. Also called a directory.
font	A size and style of typeface.
formatting	The function of software, such as word processing software, that enables users to change the appearance of a document by specifying the font, point size, and style of any character in the document, as well as the overall layout of text and graphical elements in the document.
hard disk	A rigid, magnetically sensitive disk that spins rapidly and continuously inside the computer chassis or in a separate box attached to the computer housing. Used as a storage device.
hardware	Physical parts of the computer system.

hyperlink	A word, phrase, or picture that acts as a button, enabling the user to explore the Web or a multimedia document with mouse clicks.
Internet	A global interconnected network of thousands of networks linking academic, research, government, and commercial institutions, and other organizations and individuals. Also known as the Net.
keyboard	Input device, similar to a typewriter keyboard, for entering data and commands into the computer.
memory	Stores programs and the data they need to be instantly accessible to the CPU.
menu	An onscreen list of command choices.
monitor	An output device that displays text and graphics onscreen.
monospaced fonts	Fonts like those in the Courier family that mimic typewriters; characters, no matter how skinny or fat, always take up the same amount of space.
mouse	A handheld input device that, when moved around on a desktop or table, moves a pointer around the computer screen.
open	To load a file into an application program's workspace so it can be viewed and edited by the user.
operating system (OS)	A system of programs that performs a variety of technical operations, providing an additional layer of insulation between the user and the bits-and-bytes world of computer hardware.
paste	A word processing program text editing tool that allows you to cut or copy words from one part of a document and place the copy elsewhere in the same or a different document.
peripheral	An external device, such as a keyboard or monitor, connected via cables to the system central processing unit.
personal computer	A small, powerful, relatively low-cost microcomputer.
point size	A measure of character size, with one point equal to 1/72 inch.
printer	Output device that produces a paper copy of any information that can be displayed on the screen.
proportionally spaced fonts	Fonts that enable more room for wide than for narrow characters.
sans-serif fonts	Typeface fonts in which the characters have plain and clean lines rather than embellishments at the ends of the main strokes.
serif fonts	Typeface fonts in which the characters are embellished with fine lines (serifs) at the ends of the main strokes.
Search	Looking for a specific record.
search engine	A program for locating information on the Web.
software	Instructions that tell the hardware what to do to transform input into output.
spam	Internet junk mail.
speakers	The personal computer peripherals that emit music, voices, and other sounds.
typeface	All type, including roman, bold, and italics, of a single design, such as Palatino or Helvetica.
URL (uniform resource locator)	The address of a Web site.

user name	A one-word name that you type to identify yourself when connecting-logging in-to a secure computer system, network, or email account. Sometimes called login name or alias.
viruses	Software that spreads from program to program, or from disk to disk, and uses each infected program or disk to make copies of itself. A form of software sabotage.
Web browsers	Application programs that enable you to explore the Web by clicking hyperlinks in Web pages stored on Web sites.
Web page	A single document on the World Wide Web (WWW), made up of text and images and interlinked with other documents.
Web site	A collection of related Web pages stored on the same server.
word wrap	A word processing program text editing feature that automatically moves any words that won't fit on the current line to the next line, along with the cursor.
World Wide Web (WWW)	Part of the Internet, a collection of multimedia documents created by organizations and users worldwide. Documents are linked in a hypertext Web that allows users to explore them with simple mouse clicks.
WYSIWYG	Short for "what you see is what you get," pronounced "wizzy-wig." With a word processor, the arrangement of the words on the screen represents a close approximation to the arrangement of words on the printed page.

Source: *Computer Confluence*

End of Chapter Summary

Presented: In a webpage in the WebCT course site.

Meets module objective(s): ALL

Meets course objective(s): Explain the components of a personal computer and associated peripherals; understand and discuss components of computer systems, networks, and operational issues.

PCs come in a variety of shapes and sizes, but they're all made up of two things: the physical parts of the computer, called hardware, and the software instructions that tell the hardware what to do. The PC's system unit contains the CPU, which controls the other components, including memory, disk drives, and monitor screens. The keyboard and mouse enable a user to communicate with the computer, which sends information back to the user through displays on the monitor.

The computer's operating system software takes care of details of the computer's operation. Application software provides specific tools for computer users. The file system contains the numerous files needed for the operating system and application software to run smoothly, and the personal files created by the computer's users. A hierarchical system of folders organizes the files, making it easier for application programs and computer users to find the files they need.

PCs can be networked to other computers using cables, radio waves, or other means. A computer can also be connected to a network through standard phone lines using a modem.

The Internet is a global network of computer networks used for education, commerce, and communication. The most popular Internet activities are exploring the World Wide Web and communicating with electronic mail.

A Web browser is a computer application that provides easy access to the World Wide Web—a wide-ranging array of multimedia information on the Internet. Web pages are interconnected by hyperlinks that make it easy to follow information trails. Search engines serve as indices for the Web, locating pages with subject matter that matches keywords.

Electronic mail (or email) enables almost instant communication among Internet users. Some email systems can be accessed through Web browsers.

The Internet is not without risks. Internet users must be prepared to deal with unsolicited (and often unsavory) email, computer viruses, identity theft, and other risks.

The *Computer Confluence* CD-ROM and companion Web site use PC multimedia and Internet technology to enhance and expand the information and ideas presented in this book.

Source: *Computer Confluence*

Web Resources

Presentation: In a web page with the active links that, when clicked on, will take the student to an external resource to emphasize the material presented in the chapter.

Meets module objective(s):

- Understand key terms of beginning computing
- Describe the basic parts of a PC and how they work together
- Describe briefly the history of the computer

Meets course objective(s): Explain the components of a personal computer and associated peripherals; understand and discuss components of computer systems, networks, and operational issues.

1. <http://www.nuhorizons.com/Glossary/ComputerConcepts.html>
This Web site is a great resource for computer-related terms.
2. <http://www.hitmill.com/computers/computerhx1.html>
This Web site is a great resource for computer history.
3. <http://www.islandnet.com/~kpolsson/comphist/>
This Web site is a great resource for computer history.
4. <http://www.acmehowto.com/howto/pc/overview/componentsoverview.php>
The Web site describes the basic components of a PC and how they work together.

Source: *Computer Confluence*

Student Homepage

Purpose: to begin building a learning community within the class

Presentation: This “homepage” is created by the student through the Student Homepage Tool in WebCT through the course WebCT section.

Meets module objective(s): Use a keyboard and mouse to enter and edit text

Student Homepage (from Syllabus) - You each need to do a student homepage so we can put faces with names. You can look at my page as an example of the content I would like to see on your homepage. You will use the Student Homepage tool. There are instructions on how to use this tool in the Broadening Access Student Support site that is listed in your WebCT course listing. I will also cover this a bit in our first class meeting.

Discussion Questions - Assessment

Purpose: to begin building a learning community within the class (question 1) and to build critical thinking skills after reading the textual materials (question 2).

Presentation: The questions below are posted on an asynchronous discussion board in individual threads. The students then must respond to my initial post and to one other person on two separate days.

Meets module objective(s): Describe some of the risks of Internet use and how to minimize them, use a keyboard and mouse to enter and edit text

Meets course objective(s): Understand and discuss components of computer systems, networks, and operational issues.

Question 1:

Think of one word that best describes you or your life. Enter your word and your name in the subject line of a discussion board entry, and then explain why you chose that word in the body of the posting. Review the entries of others and find someone else whose word resonates with you. Reply to their message and try to find at least two additional nouns that the two of you have in common by the end of the week. I will start below.

Question 2:

Did you know that NMSU-C has Wireless Internet Access Points in every building? Do you think instructors should let students use their own laptops in the classroom? Why or why not?

Rubric for Assessment

Category	4	3	2	1
Quality of Information	Information clearly relates to the main topic and adds new concepts, information. It includes several supporting details and/or examples	Information clearly relates to the main topic. It provides at least 1 supporting detail or example.	Information clearly relates to the main topic. No details and/or examples are given.	Information has little or nothing to do with the main topic or simply restates the main concept.
Resources	Consistently	Occasionally	Provides	Does not provide

	provides resources even if not required.	provides resources even if not required	resources when requested.	resources even when requested.
Critical Thinking	Enhances the critical thinking process consistently through premise reflection and difference questioning of self and others.	Critical thinking and premise reflection is demonstrated in discussion by the individual only.	Responds to questions but does not engage in premise reflection.	Does not respond to questions posed by the facilitator.
Participation	Encourages and facilitates interaction among members of the online community.	Responds to other members of the online community.	Rarely interacts or responds to other members of the online community.	Responds to the discussion facilitator only.
Professional Language	Both professional vocabulary and writing style are used consistently throughout the discussion.	Both professional vocabulary and writing style are used frequently throughout the discussion.	Both professional vocabulary and writing style are used occasionally throughout the discussion.	Professional vocabulary and writing style are not used.
Total				

Written Assignment - Assessment

Presentation: As an assignment in the Assignment Drop box area of the course. The students submit their assignment in a Word document for grading. The instructor then downloads the assignments, comments in the document, and then re-uploads the graded document for student improvement.

Meets module objective(s): Describe the basic parts of a PC and how they work together, use a keyboard and mouse to enter and edit text

Meets course objective(s): Explain the components of a personal computer and associated peripherals.

Microprocessors

The manufacturing of microprocessors is a minute skill. Go to <http://www.intel.com/education/makingchips/> and view how microprocessors are made. After viewing, summarize the process. Outline what types of skills are needed to work on the line building microprocessors and the process the worker uses. Put your answers in a Word Document and upload.

Source: *Computer Confluence*

Rubric for Assessment:

	Criteria				Points
	4	3	2	1	
Assignment Completeness	All items attempted	9/10 of items attempted.	At least 1/2 of the items attempted.	Less than 1/2 of all items attempted.	
Accuracy	All items are correct.	9/10 of items are correct.	Between 1/2 and 9/10 of items are correct.	Less than 1/2 of all items are correct.	
Demonstrated Knowledge	Shows complete understanding of the questions, mathematical ideas, and processes.	Shows substantial understanding of the problem, ideas, and processes.	Response shows some understanding of the problem.	Response shows a complete lack of understanding for the problem.	
Requirements	Goes beyond the requirements of the problem.	Meets the requirements of the problem.	Does not meet the requirements of the problem.		
Grammar & Spelling	All words are spelled correctly and grammar is used appropriately.	Marginal misspellings and grammatical mistakes.	Large amount of grammatical errors and misspellings.		
Total---->					

Developed from <http://www.teach-nology.com>

Modules 1 Quiz

How Presented: A multiple choice exam. Thirteen of the following 44 questions will randomly be selected for each student.

Purpose: To assess total knowledge of Module 1.

Meets module objective(s): ALL

1. A desktop computer is also known as a:
 - a. Palm Pilot.
 - b. laptop.
 - c. mainframe.
 - d. PC.

2. The physical parts of a computer are known as:
 - a. hardware.
 - b. software.

- c. firmware.
 - d. read-only memory (ROM).
3. The device that controls all PCs is the:
- a. RAM.
 - b. microprocessor.
 - c. memory.
 - d. hard disk.
4. CPU stands for:
- a. central processor unit.
 - b. centralized practical unit.
 - c. central processing unit.
 - d. computer processing unit.
5. What device is considered the "brains" of the computer?
- a. CPU
 - b. RAM
 - c. ROM
 - d. System unit
6. Built-in memory is referred to as:
- a. ROM.
 - b. a hard disk.
 - c. RAM.
 - d. a CD-ROM drive.
7. External devices that are connected to a PC through cables are known as:
- a. storage devices.
 - b. optical storage devices.
 - c. peripherals.
 - d. system unit devices.
8. Removable media include all of the following EXCEPT:
- a. CD-ROMs.
 - b. diskettes.
 - c. DVDs.
 - d. hard disk drives.
9. What is the difference between a CD-ROM and a CD-RW?
- a. They are the same-just two different terms used by different manufacturers.
 - b. A CD-ROM can be written to and a CD-RW cannot.
 - c. A CD-ROM holds more information than a CD-RW.
 - d. A CD-RW can be written to, but a CD-ROM can only be read from.

10. A popular type of removable media is:

- a. the hard disk.
- b. RAM.
- c. the CD.
- d. the 5 ¼ inch floppy disk.

11. CD-RW and DVD drives are known as _____ drives.

- a. magnetic
- b. temporary storage
- c. optical
- d. floppy

12. All of the following are considered common peripheral devices EXCEPT a:

- a. mouse.
- b. keyboard.
- c. printer.
- d. monitor.

13. What peripheral device generates hard copies?

- a. Printer
- b. Monitor
- c. Scanner
- d. PC tablet

14. Cursor keys are located on a:

- a. mouse.
- b. keyboard.
- c. touchpad.
- d. monitor.

15. Holding the mouse button down while moving an object or text is known as:

- a. moving.
- b. dragging.
- c. dropping.
- d. highlighting.

16. Pointing to an object and clicking the right button on the mouse will most likely generate a:

- a. menu.
- b. delete option.
- c. toolbar.
- d. table of options.

17. The software that handles the background tasks and details of a computer is known as the:

- a. system software.
- b. Mac OS.
- c. application software.
- d. executable files.

18. Macintosh computers use a version of _____ Mac OS.

- a. Microsoft's
- b. Apple's
- c. IBM's
- d. Intel's

19. Programs, such as Microsoft Word, that allow a user to accomplish a task or goal are referred to as:

- a. system software.
- b. application software.
- c. Web browsers.
- d. operating systems.

20. What controls the CPU?

- a. RAM
- b. ROM
- c. Software
- d. Peripheral devices

21. The _____ primarily take(s) care of the behind-the-scenes details and manage(s) the hardware.

- a. operating system
- b. application software
- c. peripheral devices
- d. hard disk

22. A(n) _____ is created by an application.

- a. executable file
- b. software program
- c. operating system
- d. document

23. Applications are often referred to as:

- a. data files.
- b. executable files.
- c. system software.
- d. the operating system.

24. When a file contains instructions that can be carried out by the computer, it is often called a(n) _____ file.

- a. data

- b. executable
- c. information
- d. application

25. To what temporary area can you store text and other data, and later paste them to another location?

- a. The Clipboard
- b. ROM
- c. The hard disk
- d. CD-ROM

26. When you change fonts, how text looks, or how a paragraph looks on a page, you are changing the:

- a. formatting.
- b. point size.
- c. structure.
- d. print setup.

27. What is a size and style of typeface called?

- a. A proportionally spaced font
- b. A letter
- c. A print style
- d. A font

28. Which type of font has the most plain clean lines?

- a. Monospaced fonts
- b. Proportionally spaced fonts
- c. Sans-serif fonts
- d. Serif fonts

29. What are the three characters that follow the period and file name referred to?

- a. An extension
- b. A file folder
- c. A file locator
- d. An expansion

30. What is the electronic equivalent to using paper file folders to organize your paper documents?

- a. File compression
- b. Folders
- c. Files
- d. A file extension

31. Files that contain video, songs, or images are often:

- a. stored as gifs.
- b. saved in RAM.

- c. compressed.
 - d. compacted.
32. The Windows _____ is a screen that includes icons of software programs and possibly files and/or folders.
- a. toolbar
 - b. menu
 - c. desktop
 - d. XP window
33. A common feature of both a Macintosh desktop and a Windows desktop is the use of:
- a. icons to represent each object.
 - b. a menu bar at the bottom of the screen.
 - c. a Dock.
 - d. a menu bar at the top of the screen.
34. Using a modem to connect to a network is referred to as a:
- a. direct connection.
 - b. local area network (LAN).
 - c. wide area network (WAN).
 - d. remote access connection.
35. An extensive network of interconnected networks is known as:
- a. the Internet.
 - b. the World Wide Web.
 - c. a Web browser.
 - d. a LAN.
36. You can view Web pages on your own PC through the use of:
- a. a Web browser.
 - b. utility software.
 - c. Web site browser files.
 - d. file transfer protocol (FTP) sites.
37. The _____ for Intel is <http://www.intel.com>.
- a. hyperlink
 - b. uniform resource locator (URL)
 - c. subdirectory
 - d. file name
38. Google is an example of a:
- a. URL.
 - b. bookmark.
 - c. portal.
 - d. search engine.

39. ISP stands for:

- a. Internet surplus provider.
- b. Internet service provisions.
- c. Internet service provider.
- d. Internet social provider.

40. An email address contains two parts the username and the:

- a. ISP.
- b. host name.
- c. URL.
- d. WWW address.

41. What is the storage area for email messages called?

- a. A folder
- b. A mailbox
- c. A directory
- d. The hard disk

42. Hotmail is a popular:

- a. email service.
- b. ISP.
- c. spam filter software program.
- d. host computer company.

43. _____ are often delivered to a PC through an email attachment and are often designed to do harm.

- a. Viruses
- b. Spam
- c. Portals
- d. Email messages

44. People that write viruses are often known as:

- a. ID thieves.
- b. hackers.
- c. Web browsers.
- d. hosts.