**Introduction to Health Information Technology:**

**A Guide for Entry Level Healthcare Professionals**

***Instructors Manual***

**Module 1:**

**Basic Computer Skills to Navigate Electronic Health Record**

**Acknowledgements**

This curriculum was developed with grant funding from The Healthcare Workforce Transformation Fund through the Commonwealth of Massachusetts, Executive office of Labor and Workforce Development. The grant project was administered by Commonwealth Corporation and The Massachusetts eHealth Institute.



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**Project Mission**

Springfield Technical Community College and its partners, Middlesex and Cape Cod Community Colleges, secured funding from Massachusetts Technology Collaborative to develop statewide health IT training for staff working in long term care and home health organizations. The colleges hired the Massachusetts Senior Care Association to conduct focus groups with employers to determine the training content and audience. The focus groups occurred in September of 2015 and involved various long term care and home care providers from Western Massachusetts, Merrimack Valley, and Cape Cod. Through the focus groups the consultants gathered information from these providers to help faculty and staff develop a curriculum to address incumbent worker competency gaps in the area of health information technology. The following curriculum is the project deliverable.

**Being an Effective Presenter:**

Knowing how to lecture well is a crucial skill to master. Effective lecturing is characterized by enthusiasm and expressiveness, clarity, and interaction (Murray in Perry & Smart, 1997). Consider using the tips below to introduce students to the subject and stimulate their enthusiasm about the course material.

* **Be Prepared**
  + Outline clear objectives for your lecture—both what students should know after the lecture and why it is important.
  + Develop a lecture outline and any audiovisuals.
  + If you are nervous about the lecture, write out your introduction and rehearse it.
* **Keep Your Focus**
  + Create effective visuals, analogies, demonstrations, and examples to reinforce the main points.
  + Share your outline with students.
  + Emphasize your objectives and key points in the beginning, as you get to them, and as a summary at the end.
* **Engage Your Audience**
  + Focus attention early on using a quote, a dramatic visual, an anecdote, or other material relevant to the topic.
  + Integrate visuals, multimedia, discussion, active learning strategies, small-group techniques, and peer instruction.
  + Link new material to students’ prior knowledge, such as common experiences or previous coursework.
  + Show enthusiasm for the topic and information. Remember, you are modeling your discipline.
  + Give students time to think and genuine opportunities to respond.
  + Plan for diverse learners. Use verbal, visual, and kinesthetic approaches such as hands-on exercises and simulations.
* **Get Feedback**
  + Observe students’ non-verbal communication: note taking, response to questions, eye contact, seating patterns, and response to humor. Are they “with” you?

**Module 1: Basic Computer Skills to Navigate Electronic Health Records**

**Introduction**

This learning module will focus on the basic computer skills that are required to navigate and interact with the electronic health record. It is important for the instructor to acknowledge and recognize the diverse level of knowledge and skill that the class participants may or may not have. Therefore, it is recommended at this point to identify individuals that may need extra help and place them closer to the instructor or next to a more digitally savvy user that is willing to help guide them through the class material without interfering with the learning needs of the helper.

**Module 1: Basic Computer Skills to Navigate Electronic Health Records**

**Learning Outcomes** (Slide #2)

Upon completion of this course the learner will be able to:

* Identify different types of computers systems and how they operate
* Discuss the influence of ergonomics on computer usage
* Understand the importance of the username and password when logging on and off of a computer
* Identify common icons used to open software and applications
* Know how to use Windows bars and functions such as: minimize, restore, resize, move, and close
* Understand the concepts of web browsers and links to connect with web-based information I
* Identify common documentation options and their use to enter, save, and edit information

**Module 1: Basic Computer Skills to Navigate Electronic Health Records**

**Syllabus**

* Hardware
  + Desktop/PC (Personal Computer)/Modem
  + Laptop/Notebook
  + Tablet
  + Handheld/Smart Phone
* Accessories
  + Monitor/Screen
  + Mouse
  + Keyboard
  + Printer
  + Headphones
  + Speakers
* Network
  + Hardwired
  + Wireless
* Operating System/Platform
  + Basic Computer Software Function/Programs
  + Microsoft Products (i.e. Word, Excel, Office)
  + Macintosh Products (i.e. Pages)
  + Note Pad
  + Calculator
* Internet/Server
  + Connect
  + Communicate
  + “On-Line”
* Ergonomics
  + Posture
  + Positioning
  + Lighting
* Logging On/”Booting Up”
  + Modem/PC
  + Screen
* Cursor
* Username and Password
* Icons
  + Applications
  + Software
  + Files/Folders
* Window Bars
  + Title Bar
  + Menu Bar
  + Tool Bar
  + Scroll Bar
* Window Functions
  + Minimize
  + Restore
  + Resize
  + Move
  + Close
* Browser
  + URL Address
  + IP Address
  + Refresh
* Links
  + Text
  + Webpage
  + Website
* Documentation Terminology
  + Text Box
  + Text Fields
  + Drop Down Menu
  + Radio Button
  + List Box
  + Check Box
* Patient Care Documentation Entry
  + Mouse & Keyboard Skills
  + Selecting Predefined Documentation
  + Narrative Text
  + Completing/Entering Documentation/Signature
* Documentation Editing
  + Delete
  + Backspace
  + Editing
* Logging Off
* Security of Patient Information

**Instructor Teaching Points**

**Computer Hardware** (Slide #3)

* Ask class participants if they can give examples of computer hardware
* Discuss the following types of computer hardware
  + Desktop/PC (Personal Computer)/Modem
  + Laptop/Notebook
  + Tablet
  + Handheld/Smart Phone

**Desktop Computer** (Slide #4)

* Ask if class participants have a desktop computer or any experience with using a desktop computer

**Other Types of Computers** (Slide #5)

* Ask if they have any experience using other types of computers
* Discuss the *Smart Phone* as a type of handheld computer
* Explain how information is accessed differently when using different types of computers

**Computer Accessories** (Slide #6)

* Explain and discuss the following computer accessories
  + Monitor/Screen
  + Mouse
  + Keyboard
  + Printer
  + Headphones
  + Speakers
* Ask class participants if they can name any other types of computer accessories (flash drive/thumb drive, remote control, projector)

**Hardwired vs. Wireless Network** (Slide #7)

* Discuss the various types of wireless devices and charging & maintenance

**Computer Operating System** (Slides #8 & #9)

* Explain that computer operating system (also called a *platform*) may be difficult for some to grasp because it is multifaceted and cannot be seen
* Simplify the terms: An operating system is the software that supports a computer’s basic function, such as running applications (apps), managing storage, or entering documentation
* Discuss Operating Systems/Platforms using examples
  + Basic Computer Software Function/Programs
  + Microsoft Products (i.e. Word, Excel, Office)
  + Macintosh Products (i.e. Pages)
  + Note Pad
  + Calculator
* Ask class participants if anyone has experience with entering or saving a document or pictures: use example of smart phone
* Explain the difference between *Windows and Mac*

**The Internet** (Slide #10)

* Discuss how the Internet must have a Server, or computer program, to connect.
* Ask the class participants what being “On-Line” means to them.
* Discuss examples of simple internet activities such as banking or shopping
* Ask class participants for examples of activities they perform. They may not know the terms Internet or www.

**Ergonomics** (Slide #11 & #12)

* Discuss the importance of ergonomics
* Efficiency in relation to the way the human body moves and functions (comfort)
* Safety in relation to impact on human body
* Physical stress from positioning or repetitive movements
* Resting periods if spending prolonged hours on computer
* Discuss ergonomics in relation to the various types of computers (desk top, vs. tablet, vs. smart phone/handheld)

**Knowledge Checkpoint** (Slide #13)

* What types of computers use a keyboard and mouse as opposed to touching the screen to interact? Answer: Desktop & some Laptop Computers
* Name three main accessories to a computer system. Answer: Keyboard, Mouse, Printer, Speakers, Headphones
* What is the difference between a hardwired system and wireless system? Answer: Hardwired needs wires to use and connect, Wireless does not.
* True or False: A computer’s operating system allows the computer to communicate with the user without knowing how to speak computer language. Answer: True
* True or False: Proper body alignment and posture will help to reduce strain and health problems associated with using computers. Answer: True

**Instructor Teaching Points**

**Computer Access** (Slide #14)

* Explain how all computers have some type of power button and that power buttons may vary.
* Discuss security related to log-in information and once logged in, that the computer will recognize and remember the user (digital signature)
* Explain how icons work when hovering over them and clicking on them

**Common Icons** (Slide #15)

* Use computer or diagram to further explain common icons (i.e. home, refresh, Internet Explorer, search, or printer)
* Ask for examples of other icons that they may have seen or used (i.e. Smart Phone Apps)

**Window Bars** (Slide #16 & #17)

* Explain how examples (title, menu, window, scroll) are from the Microsoft Windows products/software/operating system
* Bars in Macintosh/Mac are similar
* Reinforce different functions of windows bars
* Test class participants by asking what bar they would use for various functions
  + Identify current program that computer is running (title bar)
  + Performing specific commands and functions (menu & tool bars)
  + Moving the viewing position to access additional information (scroll bar)

**Window Functions** (Slide #18 & #19)

* Explain that examples (move, minimize, restore, resize, scroll) are from the Microsoft Windows products/software/operating system
* Functions in Macintosh/Mac are similar
* Reinforce different functions of windows that change the view on the screen
* Test class participants by asking what icon they would use for various functions
* Identify where to click to Move, Minimize, Restore, Resize, and Close

**Web Browser** (Slide #20 & #21)

* Refer back to *Internet / www*
* Explain *web browser* as the avenue to access specific locations on the internet
* Refer back to the *Refresh* icon
* Reinforce that the Web Browser in the picture is related to a Mac operating system as opposed to Windows
* Ask class participants for examples of URL Addresses that they have used or could use (Amazon, Federal Government, Google)

**Links** (Slide #22)

* Explain the differences and similarities of links and URLs
* Links are another pathway to access the internet
* Links supplement information that is currently on screen
* When documenting healthcare information, there may be a link to explain a fall scale or a skin scale

**Knowledge Checkpoint** (Slide #23)

* True or False: Some computers require a username and password to identify the person who is using it. Answer: True
* What are some common icons or pictures that computers use to identify locations? Answer: Internet Explorer, Print, Refresh, Search, & Start
* What Windows bar identifies position and allows up and down movement? Answer: Scroll Bar
* What Windows function allows the user to hide the view from the screen without closing? Answer: Minimize
* What is the computer program that provides a way to interact with information on the Internet by typing in a URL address called? Answer: Web Browser

**Instructor Teaching Points**

**Documentation Terminology** (Slide #24 #25 & #26)

* Ask if anyone has ever documented in a *text box* and what types of things were documented
* Explain how a text box/field can be limited to a specific number of characters
* Define characters as symbols & numbers
* Explain how spaces are also included in the field count
* Ask if anyone has used a drop down menu and discuss purpose
* Ask if anyone has ever used radio buttons or check boxes for documentation choices and discuss purpose

**Documentation Entry** (Slide #27 & #28)

* Mouse & Keyboard Skills
  + Reinforce the difference between *touch-screen* and mouse-keyboard use when interacting with the various types of computers.
  + Ask if anyone has ever used a mouse
  + Explain different functions of a mouse
    - Moving
    - Left Click
    - Scroll
    - Right Click
  + Explain how the mouse pointer changes to a *cursor* when moved to text
* Selecting Predefined Documentation vs. *Narrative / Free Text*
  + Explain & Discuss predefined Documentation as a means to limit the choices
  + Pros and Cons
    - Saves times to have selection as opposed to typing (narrative)
    - Data collection
    - What if the list does not have what you want to enter?
    - Comment fields

**Completing Documentation** (Slide #29)

* Discuss various icons to save information
* Remind class that all entries are associated with the user
* Ask what would happen if the information entered was not saved

**Documentation Editing** (Slide #30)

* Explain how to change documentation prior to saving
* Explain how highlighting and using backspace/delete can erase more information more quickly
* Editing information after saving
  + Don’t panic
  + Seek help and report issues
  + Enter corrected information

**Documentation Responsibilities** (Slide #31)

* Ask audience what responsibilities they have when documenting
* Discuss confidentiality and log off as a means to protect user and patient

**Knowledge Checkpoint** (Slide #32)

* List three common documentation options that have set choices to select from. Answer: Check Boxes, List Boxes, Drop Downs, & Radio Buttons
* True or False: Clicking the left side of the mouse lets the user make a selection. Answer: True
* Name two different ways to edit a computer entry. Answer: Delete & Backspace
* True or False: Logging off of a computer can protect both information and user. Answer: True

**Summary and Q& A** (Slide #33 & #34)

* Allow class participants final opportunity to review learning and ask questions

**Module 1 Summary: Basic Computer Skills to Navigate Electronic Health Records** (Slide #33)

You have learned about:

* Types of computers and the similarities and differences in the way in which they function
* The importance of ergonomics in relation to efficient and safe computing
* Navigating within a computer in order to find information or go to a specific location
* Various ways to enter and save documentation using a computer and the importance of logging off to protect information.

**Exam with Answer Key**

**Module 1: Basic Computer Skills to Navigate Electronic Health Records**

1. *What types of computers use a keyboard and mouse as opposed to touching the screen to interact?*

Answer: Desktop & some Laptop Computers

1. *Name three main accessories to a computer system.*

Answer: Keyboard, Mouse, Printer, Speakers, Headphone

1. *What is the difference between a hardwired system and wireless system?* Answer: Hardwired needs wires to use and connect, Wireless does not.
2. *True or False:* A computer’s operating system allows the computer to communicate with the user without knowing how to speak computer language.

Answer: True

1. *True or False:* Proper body alignment and posture will help to reduce strain and health problems associated with using computers.   
   Answer: True
2. *True or False:* Some computers require a username and password to identify the person who is using it.

Answer: True

1. *What are some common icons or pictures that computers use to identify locations?*

Answer: Internet Explorer, Print, Refresh, Search, & Start

1. What Windows bar identifies position and allows up and down movement? Answer: Scroll Bar
2. What Windows function allows the user to hide the view from the screen without closing?

Answer: Minimize

1. *What is the computer program that provides a way to interact with information on the Internet by typing in a URL address called?*   
   Answer: Web Browser
2. *List three common documentation options that have set choices to select from.*

Answer: Check Boxes, List Boxes, Drop Downs, & Radio Buttons

1. *True or False:* Clicking the left side of the mouse lets the user make a selection.

Answer: True

1. *Name two different ways to edit a computer entry.*

Answer: Delete & Backspace

1. *True or False:* Logging off of a computer can protect both information and user.

Answer: True

**Module 1: Basic Computer Skills to Navigate Electronic Health Records**

**Glossary of Terms**

**Accessories:** Devices that work with a computer such as a key board, mouse, or printer.

**Applications:** “Apps” or computer programs that are designed to perform specific groups of activities for the user. Some examples of apps include word processors, spreadsheets, and computer games.

**Backspace:** A key on the computer that causes the curser to move backwards. The backspace key erases any entries to the left of the curser.

**Basic Computer Software Function/Programs:** System software controls the basic functions of the computer and is invisible to the user; the user to perform specific tasks activates Application software.

**Browser:** A computer program that provides a way to interact with information on the Internet.

**Check Box:** A small box that can be selected to represent a choice.

**Close:** To close the view/window.

**Cursor:** A moveable symbol that marks a position on the computer display screen.

**Delete:** A command on a keyboard that erases text to the right of the curser.

**Desktop/PC (Personal Computer)/Modem:** A stationary computer that sits on a table or desk and is not portable.

**Drop Down Menu:** A list of choices that can be activated when selected by the user.

**Editing:** Changing, correcting, or modifying a computer entry.

**Ergonomics:** The science of designing and arranging equipment to maximize efficiency and safety.

**Files/Folders:** A place within a computer where information is stored and available for use.

**Handheld/Smart Phone:** A computer that is small enough to be operated in the hand.

**Hardware:** A collection of physical parts of a computer system.

**Hardwired:** A device that needs to be connected to wires in order to be used.

**Icons:** A picture or symbol on a computer display that represents a location or command.

**Internet:** A global communication network that allows computers to connect and exchange information.

**IP Internet Protocol Address:** A code that identifies a computer.

**Keyboard:** A set of typewriter like keys used to type data into a computer.

**Laptop/Notebook:** A computer that is portable and can run on a battery.

**Links:** A word or group of words or picture, usually highlighted, that connect to text in an electronic document or to another webpage or website.

**List Box:** A list of choices that can be activated when selected by the user.

**Menu Bar:** The bar below the title bar that a list commands that can be selected.

**Minimize:** To hide from view/window without closing.

**Modem/PC:** A device that enables a computer to transmit data.

**Monitor/Screen:** A display screen used to provide visual output from a computer.

**Mouse:** An accessory device used to interact with a computer.

**Move:** To move the view/window.

**Narrative Text:** A computer entry that allows the reader to enter information in their own words as opposed to selecting from choices to enter information. Narrative texting is also known as “Free Texting”.

**Network:** A set of computers connected together for the purpose of communicating and sharing resources. An example of a network is a patient’s health record. The internet is another example.

**Note Pad:** Basic computer software that allows the user to enter text to create an informal document.

**On-Line:** Connected to another computer or to a network of computers.

**Operating System/Platform:** The software that supports a computer’s basic function, such as running applications, managing storage, or entering documentation.

**Radio Button:** A round circle that represents a choice from a list to select from.

**Refresh:** To update or renew the display on the computer monitor by sending a new signal.

**Resize:** To change the height and/or width of the view/window.

**Restore:** To return the view on the monitor to its previous size.

**Server:** A computer program that allows the user access to locations on the Internet.

**Scroll Bar:** A narrow strip on the side of a window or document that identifies position and allows movement up and down.

**Software:** The computer programs used to direct the function of a computer.

**Tablet:** A wireless, portable computer that used “touch-screen” technology to interact with and communicate with the user.

**Text Box/Text Field:** A box-shaped area used to enter text information.

**Text:** Words, numbers, or other symbols or graphics.

**Title Bar:** The bar at the top of the screen/window; states the name of the program of document that is currently running.

**Tool Bar:** A strip of words or icons that perform specific computer functions.

**Touch-Screen:** A display device that allows a user to interact with a computer by touching areas on the screen.

**URL / Uniform Resource Locator Address:** An electronic address that identifies and locates an Internet resource.

**Username and Password:** A set of words, numbers, or characters that identify the user of a shared computer network.

**Webpage:** An electronic display on a computer monitor when connected to the Internet

**Website:** A central location on the Internet that contains more than one webpage.

**Wireless:** Any computer network where wires are not necessary to connect to the system to send and receive information