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EAST TENNESSEE STATE UNIVERSITY
PURPOSE OF THIS STUDY GUIDE

The purpose of this study guide is to highlight criteria critical to the understanding of concepts covered in CSCI-1100. Concepts noted in this document include, but are not limited to:

- Computer hardware, operating systems, and software applications
- General computer safety, proper computer safety techniques, and identification of security risks
- Microsoft Office Suite Applications (Word, Excel, PowerPoint, and Access)
- File structure creation and navigation
- Identification, evaluation, and use of accredited online information sources

DISCLAIMER

The proficiency exam is an assessment of your knowledge to determine if your current knowledge of the Office Suite satisfies the graduation requirement. This study guide is **NOT** all inclusive.

MICROSOFT WORD

GENERAL INFORMATION

- Identify the ribbon, tabs, and commands
- Identify misspellings, grammatical errors, and sentence structure errors
- Define the purpose of Word

DOCUMENT CREATION

- Create, save, and rename Word documents
- Manipulate the theme, style, and design of a Word document
- View and manage the properties of a Word document

TEXT MANIPULATION

- Bold, italicize, and underline text
- Highlight text background
- Alter text font, color, and size
- Align text both horizontally and vertically
- Adjust both line and paragraph spacing
- Manipulate the design of a Word document
- Proper use of page-breaks and indentation
- Proper date formatting
- Creation and proper use of bullet points
- Proper use of the rulers and their respective purposes

REFERENCING

- Creation and proper use of endnotes and footnotes
• Creation and proper use of citations
• Proper designation of citation style
• Creation and proper use of tables of contents and bibliographies

**IMAGE MANIPULATION**

• Insert an image into a Word document
• Manipulate the height and width of an image
• Manipulate the styling of an image
• Manipulate the alignment of an image
• Insert WordArt, Shapes, and SmartArt

**DOCUMENT FORMATTING**

• Manipulate Word document margin size

**MICROSOFT EXCEL**

**GENERAL INFORMATION**

• Identify the ribbon, tabs, and commands
• Define the purpose of Excel

**WORKBOOK CREATION**

• Create, save, and rename Excel workbooks
• View and manage the properties of an Excel workbook
• Alter tab names

**FORMATTING**

• Manipulate cell styles
• Manipulate cell number formatting (percentage, currency, decimal point)
• Adjust the width of a column
• Adjust the height of a row
• Apply conditional formatting
• Manipulate cell text color
• Manipulate cell background color
• Apply styles to specific cells

**ARITHMETIC**

• Use formulas to perform calculations
• Use function to perform calculations
• Apply both relative and absolute cell references

**GRAPHS**
- Insert graphs
- Manipulate the height and width of a graph
- Apply various stylings to a graph
- Utilize a graph to reference data within a range of cells

**MICROSOFT POWERPOINT**

**GENERAL INFORMATION**

- Identify the ribbon, tabs, and commands
- Define the purpose of PowerPoint

**LAYOUT**

- Define slide layout and describe the differences for each layout
- Define transitions
  - What are they used for?
- Define the purpose of the slide sorter

**PRESENTATION**

- Describe the Slide Show command
- Define the commands that can be used to change the stacking order for slides
- Define and describe the views offered by PowerPoint

**MICROSOFT ACCESS**

**GENERAL INFORMATION**

- Identify the ribbon, tabs, and commands
- Define the purpose of PowerPoint

**DATABASE USE AND PURPOSE**

- Define and describe a database
- Define and describe the purpose of a database
- Define and describe a database query
- Define and describe a relational database

**MISCELLANEOUS MICROSOFT OFFICE**

**FILE MANIPULATION AND NAVIGATION**

- Define and identify different types of file extensions
  - What is the purpose of a file extension?
  - What happens if a file extension is removed?
- Understand the specific purpose from each Microsoft Suite application (Word, Excel, PowerPoint, Access)
- Understand the purpose of hot-key shortcuts for each Microsoft Suite application
• Understand the methods in which you navigate each Microsoft Suite application
• Define the purpose of the Office Clipboard

**COMPUTER COMPONENTS**

**HARDWARE**
• Identify input and output devices and define their functions
• Identify computer storage mediums and define their function
  o Differentiate between a hard-disk and a solid state device (SSD)
• Identify random access memory (RAM) and define its function
  o Differentiate DDRAM and SRAM
• Differentiate between volatile and non-volatile memory
  o Differentiate which components house each type of memory
• Identify a central processing unit (CPU) and define its function
  o Define the function of an arithmetic processing unit (APU)
• Identify a motherboard and define its function
• Identify a PC ports (VGA, DVI, USB)
• Identify and define the basic functions of a computer
• Identify a graphics processing unit (GPU) and define its function
• Describe the purpose of a binary operating system (BIOS)
• Identify and describe binary notation

**SOFTWARE**
• Describe system software and be able to identify several examples
• Describe application software and be able to identify several examples

**NETWORKING**
• Describe the purpose of a network
• Define and differentiate a local area network (LAN) from other various networks
• Define and differentiate a wide access network (WAN) from other various networks
• Define and differentiate an intranet from other various networks
• Define and differentiate an internet from other various networks
• Differentiate the amount of data used from various types of communications (VoIP, SMS, Video)
• Define and differentiate WiFi from other various networks

**COMPUTER SAFETY**

**COMPUTER ATTACKS**
• Define and differentiate viruses, worms, DoS, DDoS, Trojan horse, malware, ransomware, phishing,
• Describe how to effectively defend or prepare for each attack type

**COMPUTER DEFENSE**
• Differentiate between HTTP and HTTPS
• Differentiate between strong and weak passwords
• Define and describe social engineering
• Define and describe hacking
• Define and describe “key-logger”
• Define and describe a firewall
• Define and describe a “backdoor”
• Define and describe “shoulder-surfing”
• Define and describe and “exploit” in computer hardware and software

RISK ASSESSMENT

• Differentiate between a phising email and a safe email
• Describe the risk of using an unprotected network
  o Who can see your web traffic?
  o What web traffic can they see?
  o How is this dangerous?
• Define encryption and explain what it is useful
• Define and explain the “best practices” for handling a compromised computer

WINDOWS OPERATING SYSTEMS

ORGANIZATION

• Define and differentiate a directory from a file and folder
• Explain how to open a directory/folder
• Describe the implications when deleting a file from a hard-drive
• Describe the implications when deleting a file from the recycling-bin
• Define and define compressing “zipping” a file
  o Explain why is it used
• Define and describe the purpose of an operating system (OS)
• Explain how access additional options when working with files or folders
• Define and describe a file-path
• Define and describe a device-driver
  o What is its purpose?
• Explain the lettering system that Windows uses to define drives
• Define the structure of a windows file system (directory, folder, file)

TOOLS

• Define the purpose of the Taskbar
• Define the purpose of the Snipping Tool
• Define and describe the graphics user interface (GUI)
• Define the purpose of the File Explorer
• Define the purpose of a short-cut icon (tile)
• Define the purpose of the Address Bar
• Define the purpose of the Search Bar
MAINTENANCE

- Explain why it is important to regularly update software

ONLINE RESOURCES

COPYRIGHT AND INTELLECTUAL PROPERTY

- Define intellectual property
- Explain the implications for violating copyright
- Explain the implications for claiming, distributing, or selling intellectual property that is not your own

WEB ORGANIZATION

- Define and describe an internet domain
- Define and describe a website
- Define and describe a URL
- Define and describe a search engine
- Define and describe an internet protocol
- Define and describe the purpose of an IP address

SEARCHING THE WEB

- Define and describe Google’s Search Operators (, AND, OR)
- Differentiate between a specific search statement and a non-specific search statement

INFORMATION CREDIBILITY

- Differentiate between credible and non-credible information sources
- Define factors that make a source of information credible
- Describe how an information provider may introduce bias into their statements