Student Name	Instructor Name		
High School or Vocational Center		Grade	

## COMPETENCY RECORD FOR ARTICULATION Muskegon Community College

Please check below each skill the student has mastered as described, with 80 percent accuracy, or with an A or B grade. The skills needed for articulation of each course are listed.

## CIS -110 Computer Concepts 3 Credit Hours

Task	Satisfactory	Unsatisfactory
Define digital literacy		
Explain society's reliance on technology		
Describe how to protect your personal information		
Explain the role of technology in the professional world		
Use technology to find a career		
Define convergence		
Describe the legal and ethical responsibilities of a digital citizen		
Identify the uses of assistive technologies		
Discuss the evolution of the Internet		
Describe how to use the web		
Identify techniques for connecting to the Internet		
Explain various online activities and services		
Identify considerations for staying safe online		
Discuss ways to use social networks		
Describe how to conduct and evaluate online searches		
Identify considerations for using online content		
Explain considerations when purchasing technology devices		
Describe the characteristics and uses of input and output devices		
Evaluate hardware		
Prevent and troubleshoot hardware theft or failure		
Distinguish among internal, external, and cloud-based storage		
Describe network hardware		
Explain the uses of cases, motherboard components, system clock, processor cooling, the ALU, the machine cycle, and registers		

Identify responsible e-waste and technology disposal techniques  Identify the general categories of programs and apps  Differentiate among the ways you can acquire programs and apps  Identify the key features of productivity applications  Explain how digital media is used online  Describe augmented reality, virtual reality, and artificial intelligence  Identify the uses of personal interest applications  Identify the sey features of security tools  Identify the key features of security tools  Identify the key features of sicurity tools  Identify risks associated with technology use  Identify typercrimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify digital input devices  Identify physical output methods  Identify digital input devices  Identify digital input devices  Identify digital output methods  Identify uses of various assistive technology input and output methods  Identify uses of various assistive technology input and output methods  Identify uses of various assistive and manage input and output devices  Identify shysical output methods  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Task	Satisfactory	Unsatisfactory
Identify responsible e-waste and technology disposal techniques  Identify the general categories of programs and apps  Differentiate among the ways you can acquire programs and apps  Identify the key features of productivity applications  Explain how digital media is used online  Describe augmented reality, virtual reality, and artificial intelligence  Identify the uses of personal interest applications  Identify the key features of security tools  Identify the key features of security tools  Identify the key features of security tools  Identify risks associated with technology use  Identify the key features of life, disk, and system management tools  Identify the key features of life, disk, and system management tools  Identify the key features of life, disk, and system management tools  Identify risks associated with the thorology use  Identify operarimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital input devices  Identify gital output methods  Identify uses of various assistive technology input and output methods  Identify sevaste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Explain how to secure your cloud data	Discuss ways to prevent health-related injuries and disorders caused from		
Identify the general categories of programs and apps  Differentiate among the ways you can acquire programs and apps  Identify the key features of productivity applications  Explain how digital media is used online  Describe augmented reality, virtual reality, and artificial intelligence  Identify the uses of personal interest applications  Identify the key features of security tools  Identify the key features of sicurity tools  Identify isks associated with technology use  Identify risks associated with technology use  Identify risks associated with technology use  Identify risks associated orinimals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify physical output methods  Identify physical output methods  Identify digital input methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify sorage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data			
Differentiate among the ways you can acquire programs and apps  Identify the key features of productivity applications  Explain how digital media is used online  Describe augmented reality, virtual reality, and artificial intelligence  Identify the uses of personal interest applications  Identify the key features of security tools  Identify the key features of security tools  Identify risks associated with technology use  Identify cybercrimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital output methods  Identify digital output methods  Identify digital output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output methods  Explain how to customize and manage input and output devices  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data			
Identify the key features of productivity applications  Explain how digital media is used online  Describe augmented reality, virtual reality, and artificial intelligence  Identify the uses of personal interest applications  Identify the key features of security tools  Identify the key features of file, disk, and system management tools  Identify the key features of file, disk, and system management tools  Identify risks associated with technology use  Identify cybercrimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss rechniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital input devices  Identify digital output methods  Identify uses of various assistive technology input and output methods  Identify uses of various assistive technology input and output methods  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data			
Explain how digital media is used online  Describe augmented reality, virtual reality, and artificial intelligence  Identify the uses of personal interest applications  Identify the key features of security tools  Identify the key features of file, disk, and system management tools  Identify risks associated with technology use  Identify risks associated with technology use  Identify cybercrimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital output methods  Identify digital output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data			
Identify the uses of personal interest applications Identify the key features of security tools Identify the key features of file, disk, and system management tools Identify risks associated with technology use Identify cybercrimes and criminals Recognize issues related to information accuracy, intellectual property rights, and green computing Describe ways to safeguard against various types of Internet and network attacks Discuss techniques to prevent unauthorized computer access and use Identify risks and safeguards associated with wireless communications Discuss issues surrounding information privacy Describe how schools and businesses protect themselves Explain the importance of inclusivity and digital access Differentiate between input and output Identify manual input devices Identify digital input devices Identify physical output methods Identify physical output methods Identify uses of various assistive technology input and output methods Identify uses of various assistive technology input and output methods Identify e-waste risks and strategies Differentiate between storage and memory Identify storage hardware types Discuss cloud computing concepts Evaluate cloud storage options Explain how to secure your cloud data	Explain how digital media is used online		
Identify the uses of personal interest applications Identify the key features of security tools Identify the key features of file, disk, and system management tools Identify risks associated with technology use Identify cybercrimes and criminals Recognize issues related to information accuracy, intellectual property rights, and green computing Describe ways to safeguard against various types of Internet and network attacks Discuss techniques to prevent unauthorized computer access and use Identify risks and safeguards associated with wireless communications Discuss issues surrounding information privacy Describe how schools and businesses protect themselves Explain the importance of inclusivity and digital access Differentiate between input and output Identify manual input devices Identify digital input devices Identify physical output methods Identify physical output methods Identify uses of various assistive technology input and output methods Identify uses of various assistive technology input and output methods Identify e-waste risks and strategies Differentiate between storage and memory Identify storage hardware types Discuss cloud computing concepts Evaluate cloud storage options Explain how to secure your cloud data	Describe augmented reality, virtual reality, and artificial intelligence		
Identify the key features of security tools Identify the key features of file, disk, and system management tools Identify risks associated with technology use Identify cybercrimes and criminals Recognize issues related to information accuracy, intellectual property rights, and green computing Describe ways to safeguard against various types of Internet and network attacks Discuss techniques to prevent unauthorized computer access and use Identify risks and safeguards associated with wireless communications Discuss issues surrounding information privacy Describe how schools and businesses protect themselves Explain the importance of inclusivity and digital access Differentiate between input and output Identify manual input devices Identify digital input devices Identify digital input devices Identify digital output methods Identify uses of various assistive technology input and output methods Explain how to customize and manage input and output devices Identify e-waste risks and strategies Differentiate between storage and memory Identify storage hardware types Discuss cloud computing concepts Evaluate cloud storage options Explain how to secure your cloud data			
Identify the key features of file, disk, and system management tools  Identify risks associated with technology use  Identify cybercrimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	<u> </u>		
Identify risks associated with technology use  Identify cybercrimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	• •		
Identify cybercrimes and criminals  Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data			
Recognize issues related to information accuracy, intellectual property rights, and green computing  Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify digital output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data			
Describe ways to safeguard against various types of Internet and network attacks  Discuss techniques to prevent unauthorized computer access and use  Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify physical output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Recognize issues related to information accuracy, intellectual property rights, and green		
Identify risks and safeguards associated with wireless communications  Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Describe ways to safeguard against various types of Internet and network attacks		
Discuss issues surrounding information privacy  Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Discuss techniques to prevent unauthorized computer access and use		
Describe how schools and businesses protect themselves  Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Identify risks and safeguards associated with wireless communications		
Explain the importance of inclusivity and digital access  Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Discuss issues surrounding information privacy		
Differentiate between input and output  Identify manual input devices  Identify digital input devices  Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Describe how schools and businesses protect themselves		
Identify manual input devices  Identify digital input devices  Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Explain the importance of inclusivity and digital access		
Identify digital input devices  Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Differentiate between input and output		
Identify physical output methods  Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Identify manual input devices		
Identify digital output methods  Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Identify digital input devices		
Identify uses of various assistive technology input and output methods  Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Identify physical output methods		
Explain how to customize and manage input and output devices  Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Identify digital output methods		
Identify e-waste risks and strategies  Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Identify uses of various assistive technology input and output methods		
Differentiate between storage and memory  Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Explain how to customize and manage input and output devices		
Identify storage hardware types  Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Identify e-waste risks and strategies		
Discuss cloud computing concepts  Evaluate cloud storage options  Explain how to secure your cloud data	Differentiate between storage and memory		
Evaluate cloud storage options  Explain how to secure your cloud data	Identify storage hardware types		
Explain how to secure your cloud data	Discuss cloud computing concepts		
- 1	Evaluate cloud storage options		
Identify enterprise and other storage options	Explain how to secure your cloud data		
	Identify enterprise and other storage options		

CIS 110 2

Task	Satisfactory	Unsatisfactory
Explain how memory relates to storage		
Identify risks for the Internet of Things		
Explain the purpose of an operating system		
Describe how an operating system works		
Identify types of operating systems		
Explain how to select an operating system		
Explain how to manage files and folders with an operating system		
Describe the uses of operating system management utilities		
Identify operating system security features		
Explain the uses of a virtual machine		
Explain how a user interacts with a network		
Identify types of network structures		
Describe network standards and protocols		
Explain how to use hardware to connect to a network		
Explain how to set up a network		
Identify network security tools		
Describe the role of a network professional		
Explain how to interact with a database		
Identify database components		
Identify database functions		
Define relational databases		
Discuss how to use a database system		
Explain how to organize data in a database		
Explain how to set up a database		
Explain how to ensure database integrity		
Discuss how to use data responsibly		
Identify the role of a developer		
Explain the methods of development		
Describe the tools and strategies critical to system development		
Identify other roles and tasks in development		
Identify application development languages and tools		
Identify strategies for designing secure systems and applications		
Explain how to sell your app		
Explain the importance of ethics in development		

CIS 110

Task	Satisfactory	Unsatisfactory
Apply decision-making strategies to solve problems		
Identify steps to plan a new website		
Discuss tools for developing a website		
Explain how to use HTML to add content to a webpage		
Explain how to use CSS to format content on a webpage		
Describe website security techniques		
Identify steps for publishing a website		
Describe how to create accessible websites		
Identify the opportunities available in technology careers		
Identify roles in the technology industry		
Describe various information systems used in an enterprise		
Identify security jobs		
Describe the general areas of technology certifications		
Explain how to be a successful telecommuter		
Explain how to use resources to find a job		
	1	ı

Instructor's Signature	Date	

4 CIS 110