
Student Name

High School or Vocational Center

COMPETENCY RECORD FOR ARTICULATION

Baker College

Please check below each skill the student has mastered with a minimum of 80 percent accuracy or with an A or B grade.

NET 102 NETWORKING ESSENTIALS II

Task	Satisfactory	Unsatisfactory
1) Evaluate Network Structures		
a) Relate the structure and function of common logical and physical transport systems to their specific OSI layers.		
b) Calculate and apply logical network addressing schemes in a TCP/IP environment using decimal and binary numbering.		
c) Evaluate the use of TCP/IP subnetting and supernetting, and calculate a subnet masking scheme.		
d) Describe the purpose and use of DHCP, DNS, and host files for static and dynamic TCP/IP addressing, and understand the use of BOOTP and WINS in proprietary or legacy environments.		
e) Compare and contrast network and/or server operating systems as they pertain to client access & control, security, essential network services and interoperability.		
2) Evaluate Network Media and Topologies		
a) Select-the appropriate network media and physical connection hardware-best suited for specific LAN/WAN infrastructures		
b) Differentiate common LAN media access protocols and associate them with the correct communication		

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protocols.		
c) Differentiate among physical network topologies and their relationship to logical network topologies		
d) Distinguish access protocols and topologies among LANs, WANs and WLANs.		
3) Select appropriate Network Devices for a given situation		
a) Select the appropriate LAN connectivity hardware for a given network design.		
b) Map the functions of various network devices to their associated protocols and OSI layers		
c) Identify essential characteristics that differentiate common Wireless Networking protocols for both access and security		
4) Demonstrate appropriate use of Network Management, Services, and Protocols		
a) Explain the purpose and function of the OSI model and the layers of the OSI model.		
b) Describe specific networking services within each layer of the OSI model.		
c) Describe the basic structure and use of data frames in a multiprotocol environment.		
d) Demonstrate use of software-based tools for evaluating and monitoring network performance		
e) Identify the organizational value in conducting regular baseline analysis and benchmark testing.		
5) Utilize appropriate tools for troubleshooting.		
a) Demonstrate proficiency with common utilities in a command environment for diagnostics and troubleshooting		

Task	Satisfactory	Unsatisfactory
b) Utilize the appropriate hardware tools in testing and troubleshooting the network infrastructure		
c) Describe the elements of an effective troubleshooting methodology.		
d) Demonstrate troubleshooting skills of common network connectivity issues using a systematic approach		
6) Identify the components and importance of Security and Reliability for a network.		
a) Describe the steps involved in planning, testing and upgrading network operating system software and/or hardware.		
b) Explain network- and system-level fault-tolerance techniques that keep data safe from loss or damage		
c) Identify security risks in a network environment and effective methods to block or manage network security threats, and be able to differentiate virus types and their prevention.		
d) Describe effective password policies and user authentication that protect network resources		
e) Identify why an organization must construct an effective security policy		

Teacher signature _____ Date _____