
Student Name

High School or Vocational Center

COMPETENCY RECORD FOR ARTICULATION

**Computer Networking Programs
Baker 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.

NET121B ESSENTIALS OF NETWORKING

Task	Satisfactory	Unsatisfactory
Identify the elements of a network and the advantages of networking computers.		
Explain the purpose and function of the OSI model and the layers of the OSI model.		
Describe specific networking services within each layer of the OSI model.		
Describe the basic structure and use of data frames in a multiprotocol environment.		
Identify the characteristics and addressing schemes of network protocols and their relation to the OSI model.		
Describe the physical characteristics of networking media.		
Identify the network media best suited for specific LAN/WAN environments.		
Describe the basic and hybrid LAN/WAN topologies, their benefits, and uses.		
Describe the structure and functioning of the various Ethernet and Token-Ring network transport systems.		
Identify the functions and uses of LAN connectivity hardware.		
Identify and describe the OSI layer features that allow routable protocols and understand the addressing and use of non-routable protocols.		
Understand the access protocols and topologies that differentiate LANs and WANs.		
Describe the various WAN transmission methods.		
Compare and contrast Windows 2000/2003 Server, NetWare 5x/6x, and UNIX/Linux operating systems as they pertain to client connectivity, security, essential network services and interoperability.		

Task	Satisfactory	Unsatisfactory
Be able to explain and apply logical network addressing schemes in a TCP/IP environment using decimal and binary numbering.		
Understand the purpose and use of TCP/IP subnetting and supernetting, and be able to calculate a subnet masking scheme.		
Describe the details of TCP/IP subprotocols and understand use of subprotocol features in a command environment for diagnostics and troubleshooting.		
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.		
Describe the elements of an effective networking troubleshooting methodology, and practical issues related to network troubleshooting.		
Understand the concept of baseline analysis and benchmark testing.		
Describe the steps involved in upgrading network operating system software and network hardware.		
Identify the characteristics of a network that keeps data safe from loss or damage.		
Explain network- and system-level fault-tolerance techniques.		
Describe the components of useful network backup and disaster recovery planning.		
Understand 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.		
Describe network file access methods and understand effective password and data encryption procedures.		
Describe the logical and physical elements of an effective security policy.		
Understand the need for, and use of, an effective change control policy.		
Identify the basic elements and functions of a Support System for trouble management and problem escalation.		
Describe the elements and benefits of project management.		

Teacher Signature _____ Date _____