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Student Name

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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.

### CSC121 ROUTING CONCEPTS AND MODELS

- The instructor must submit a copy of the student's CISCO "Completion Certificate" along with the articulation competency worksheet.
- Baker College will need access to the following information in order to "transfer" the student from your academy to ours:
  - a. The H.S. or Technical Center's "Academy ID"
  - b. The student's login information – ID and password

Task	Satisfactory	Unsatisfactory
Demonstrate an understanding of hardware connectivity between hosts and the Internet and Intranets.		
Recognize and compare computer components and understand installation and troubleshooting techniques.		
Demonstrate the mathematical skills required to work effortlessly with integer decimal, binary, and hexadecimal numbers and simple binary logic.		
Define and describe the structure and technologies of computer networks		
Describe the meaning and application of the term bandwidth when used in networking.		
Describe network communications using layered models		
Describe the physical, electrical, and mechanical properties and the standards associated with copper and optical media used in networks.		
Describe the standards and properties associated with the transmission and reception of wireless signals used in networks.		
Explain the issues associated with the transmission of signals on networking media		
Describe the topologies and physical issues associated with cabling common LANs.		

Task	Satisfactory	Unsatisfactory
Describe the physical issues associated with cabling networking equipment to work over a WAN link.		
Explain the fundamental concepts associated with the Ethernet media access technique.		
Explain how collisions are detected, and the concepts associated with auto negotiation on an Ethernet system.		
Describe the structure and technologies used in Ethernet types.		
Define and describe the structure and technologies of computer networks. Describe the topologies and physical issues associated with cabling common LANs.		
Describe the principles and practice of switching on an Ethernet network		
Describe how the protocols associated with TCP/IP allow host communication to occur.		
Explain and demonstrate the mechanics associated with IP addressing.		
Describe how an IP address is associated with a device interface and the association between physical and logical addressing.		
Describe the principles and practice of packet switching utilizing the Internet Protocol (IP).		
Describe the concepts associated with routing, and the different methods and protocols used to achieve it.		
Explain and demonstrate the mechanics associated with IP addressing and subnets.		
Describe the fundamental concepts associated with transport layer protocols and compare the connectionless approach to transport with the connection oriented one.		
List the major TCP/IP application protocols, and briefly define their features and operation.		

Teacher signature \_\_\_\_\_ Date \_\_\_\_\_