LFCC
Lord Fairfax Community College

K2W Information Systems Technology AAS Template LF298.InfoSystemsTech.Template.K2W   Network Concepts   Edit Mode is: ON

Network Concepts ⌄

K2W Information Systems Technology AAS Template (LF298.InfoSystemsTech.Template.K2W)

Program Information
K2W Support Team
IT Professions
Web Page Design
Database Fundamentals
Network Concepts
Principles of IS
Microcomputer OS
Software Design
Systems Analysis
Weekly Interaction
Competency Progress
K2W Website
LFCC Help & Support
Library Help

Course Management

Control Panel
- My Files
- Course Tools
- Evaluation
- Grade Center
- Users and Groups
- Customization
- Packages and Utilities
- Help

✖ **Quick Unenroll**

Build Content ⌄   Assessments ⌄   Tools ⌄   Partner Content ⌄   Discover Content

Introduction and Procedures

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This topic area will demonstrate competency in networking media, physical and logical topologies, common networking standards and popular networking protocols. With emphasis the TCP/IP protocol suite and related IP addressing schemes, including CIDR, network implementation, support and LAN/WAN connectivity.

A student must achieve a minimum of 80% of the total points allowed for this competency. That equates to 592 points out of 740 points.   How this score is calculated can be found as descriptions under the various topics. Do not assume that each task is successfully accomplished if 80% is achieved for that particular task. Take notice of the variances.

Completion of the following tasks are required:

1. **Network Competency LabConnection Assignment:** (Complete ALL 25 virtual labs   These labs can be accessed via the Network Competency Lab link given below. Since the student will need to purchase an access code for these labs, a link is also provided below to do that.)
2. **Network Addressing Assignment** (Click on the folder name and the assignment is within that folder. Please read the background information prior to starting this.)
3. **Network Competency Assessment #1** (An assessment using multiple choice, and short answer and essay type questions; student gets two attempts to achieve the required score.)
4. **Network Competency Assessment #2** (An assessment similar in format to assessment #1 cover other materials; Student gets two attempts to achieve the required score)

Furthermore, in order to assist the student, Digital resources are provided as learning tools to enhance the student's knowledge as preparation for accomplishing any of these tasks.

Required Competencies to Achieve

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- Carry out trouble-shooting strategies for resolving an identified end-user IT problem.
- Explain the process of authentication and authorization between end-user devices and computing network resources
- Implement a hardware and software configuration responsive to an identified scenario
- Use a variety of practices for making end-user systems secure
- Differentiate among data types, data transfer protocols and file characteristics specified to the targeted use
- Carry out basic computer network troubleshooting techniques
- Describe the layers, protocols, and components of the OSI model
- Diagram the components of an integrated IT system
- Differentiate among various computer networking models
- Differentiate among various techniques for making a computer network secure
- Summarize the flow of data through a computer network scenario
- Demonstrate the techniques of defensive programming and secure coding
- Differentiate among strategies for business continuity provisioning of IT resources at the enterprise level
- Identify a variety of enterprise-level digital storage technologies
- Summarize the implications of various cloud computing models
- Summarize the security implications and risk for distributed IT systems
- Describe the attitudes, knowledge and abilities associated with quality customer service
- Discuss significant trends and emerging technologies nd their impact on our global society
- Summarize the tenets of ethics and professional behavior promoted by international computing societies

Lab Connection Purchasing

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- The student must purchase the access code to complete LabConnection (Online Labs) Assignment
- All labs must be completed
- A score of at least 80% must be earned on each lab before points are awarded. See details under the LabConnection assignment.

Lab access codes can be purchased at: http://www.cengagebrain.com/shop/search/9781305211339   .

Digital Learning Resources

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These learning resources will help you learn areas of networking media, physical and logical topologies, common networking standards and popular networking protocols. With emphasis the TCP/IP protocol suite and related IP addressing schemes, including CIDR, network implementation, support and LAN/WAN connectivity.

This folder contains digital learning resources that cover the competency areas.

- It is recommended that the learner review this information prior to taking the two assessments.

- If a score of at least 80% is not earned on both assessments and the addressing assignment, the learner should review this material before attempting the assessment again

Network Competency LabConnection Assignment

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This Assignment folder contains the portal to direct connect to LabConnection virtual labs.

Network Addressing Assignment

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Contains the details of an assignment involving the calculation of proper network address for given problems and scenarios.

Network Competency Assessment #1

Covers Worth 150 Points. Select best answer; Must achieve 80% success (120 points) for successful completion of this part.

Network Competency Assessment #2

Covers Worth 250 Points. Select best answer; Must achieve 80% success (200 points) for successful completion of this part.

Network Concepts

Enabled: Adaptive Release

To successful complete the Networking Concepts for the K2W Cyber Security Career Study Certificate:

1) The learn must complete all LabConnection 25 hands-on labs with a score of 80%, earn a score of 80% on the Networking Assignment, and pass both of the assessments with at a score of at least 80%

or

2) Show evidence of a Network+ Certificate not older than 3 years

Lord Fairfax Community College (LFCC)

173 Skirmisher Lane

Middletown, VA 22645-1745

LFCC.edu