BAKER COLLEGE
STUDENT LEARNING OUTCOMES

MNP 3110 Advanced Server Administration I
3 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Perform a system installation
    a. Choose course appropriate installation files from reputable Internet sources
    b. Install a Linux server in a virtual machine or hard drive, as determined by lab requirements
    c. Explain implementation of LVM and RAID options
    d. Explain the name, purpose, and location of files and directories commonly used by a system administrator.

2. Apply course concepts to managing a Linux server
    a. Plan the function and location of startup scripts, as required by the operating system
    b. Utilize the concepts of server management to determine the operation of your startup scripts
    c. Implement modifications that will improve server and workstation startup scripts
    d. Evaluate the services available from a provider of a virtual/cloud based server.

3. Evaluate server daemons related to security
    a. Contrast iptables and firewalld solutions for a network
    b. Create a model of a firewalld based firewall solution for your network
    c. Apply firewall rules for workstation computers, based on your model
    d. Justify the use of Kerberos in your network, then set up and configure Kerberos security protocol for login security

4. Apply course principles to server daemons related to system performance
    a. Determine a proper method to install and configure LDAP protocol services
    b. Apply your chosen method, installing and troubleshooting LDAP protocol services
    c. Contrast the functions of cron and anacron services
    d. Create cron and anacron rules that enhance your server's performance
    e. Estimate the value of newer services in the operating system that are not covered in the text
    f. Presentation of review and value estimate material to class.

5. Summarize course material
    a. Summarize material covered/learned in the course in a final paper.
    b. Utilize material learned from the course to take and pass the final exam

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Big Ideas and Essential Questions

Big Ideas

- Implement a system installation and management a server using tools in readily available operating systems
- Create custom solutions as needed, using operating system and daemon tools

Essential Questions

1. How is an operating system chosen, installed, and managed
2. How do server daemons used to manage frequent system needs, and processes that are repeated at known intervals

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These SLOs are approved for experiential credit.

Effective: Fall 2017