

# BUTTE COLLEGE

## COURSE OUTLINE

### I. CATALOG DESCRIPTION

**CSCI 71 - Administering Windows Server 2012**

**3 Unit(s)**

**Prerequisite(s):** CSCI 70 or MCSA 70-410 Certification

**Recommended Prep:** Reading Level IV; English Level IV; Math Level III

**Transfer Status:** CSU

34 hours Lecture

51 hours Lab

This course is the second in a three course series in which students learn the skills and knowledge necessary to implement a Windows Server 2012R2 infrastructure. The focus of the course is on the mastery and fine-tuning of core services such as user and group management, network access, and data security. Students will learn to implement, manage, maintain, and provision services and Active Directory infrastructure in a Windows Server 2012R2 enterprise environment. The course prepares students for Microsoft certification exam 70-411, Administering Windows Server 2012R2 exam.

### II. OBJECTIVES

Upon successful completion of this course, the student will be able to:

- A. Implement a Group Policy Infrastructure.
- B. Manage User And Service Accounts.
- C. Maintain Active Directory Domain Services (AD DS).
- D. Configure and Troubleshoot Domain Name Services (DNS).
- E. Configure and Troubleshoot Remote Access.
- F. Install, Configure, and Troubleshoot the Network Policy Server Role.
- G. Optimize File Services.
- H. Increase File System Security.
- I. Implement Update Management.

### III. COURSE CONTENT

#### **A. Unit Titles/Suggested Time Schedule**

Lecture	
<u>Topics</u>	<u>Hours</u>
1. Deploying and Managing Server Images, Monitoring Servers, Patch Management	4.00
2. Configuring Distributed File System (DFS) and File Server Resource Manager (FSRM)	2.00
3. Configuring File Services Disk Encryption and Advanced Audit Policies	2.00
4. Configuring DNS Zones and DNS Records	4.00
5. Configuring Virtual Private Network (VPN) and Routing, and Configuring Direct Access	3.00
6. Configuring a Network Policy Server, Policies and Network Access Protection (NAP)	5.00
7. Configuring Server Authentication and Domain Controllers	3.00
8. Maintaining Active Directory, and Configuring Account Policies	4.00
9. Configuring Group Policy Processing, Settings, Objects and Preferences	7.00
Total Hours	34.00

## Lab

<u>Topics</u>	<u>Hours</u>
1. Deploying and Managing Server Images, Monitoring Servers, Patch Management	6.00
2. Configuring Distributed File System (DFS) and File Server Resource Manager (FSRM)	4.00
3. Configuring File Services Disk Encryption and Advanced Audit Policies	4.00
4. Configuring DNS Zones and DNS Records	6.00
5. Configuring VPN and Routing, and Configuring Direct Access	5.00
6. Configuring a Network Policy Server, Policies and Network Access Protection (NAP)	7.00
7. Configuring Server Authentication and Domain Controllers	5.00
8. Maintaining Active Directory, and Configuring Account Policies	4.00
9. Configuring Group Policy Processing, Settings, Objects and Preferences	10.00
Total Hours	51.00

#### IV. **METHODS OF INSTRUCTION**

- A. Lecture
- B. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- C. Demonstrations
- D. Multimedia Presentations

#### V. **METHODS OF EVALUATION**

- A. Lab Projects
- B. Written Assignments
- C. Written Examinations
- D. Practical Evaluations

#### VI. **EXAMPLES OF ASSIGNMENTS**

- A. Reading Assignments
  - 1. Read the procedure for implementing a Distributed File System (DFS) Server Role. Using the handout provided by the instructor, create a DFS and summarize a back up, recovery, and access method for the DFS. Be prepared to demonstrate the procedure and steps in class on your server.
  - 2. Read the chapter on Patch Management. Consider the implications of a poorly planned management scheme. What are the ramifications? Prepare to discuss in class.
- B. Writing Assignments
  - 1. Using a hypothetical enterprise scenario provided by your instructor, determine the Group Policy needs of 4 different departments and provide an example of Account/Group policy settings, configuration and management. Explain in detail the reasoning behind your policy implementation choices.
  - 2. List the steps required to enable Disk Encryption and explain in detail (2-3 pages) the benefits and/or issues that might arise by doing so.
- C. Out-of-Class Assignments
  - 1. Research how Domain Name Services (DNS) works, and is implemented in a non-Windows environment. Compare it to Active Directory DNS and summarize the

- similarities and differences. Which is easier to manage and maintain? Be prepared to present your findings to the class.
2. Select and complete a Microsoft Virtual Lab online. Compare and contrast your experience in the virtual lab with the labs you have completed in the physical lab environment. Be prepared to discuss your thoughts in class.

## **VII. RECOMMENDED MATERIALS OF INSTRUCTION**

Textbooks:

- A. Microsoft Official Academic Course. Exam 70-411 Administering Windows Server 2012R2. Wiley, 2014.

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