GROSSMONT COLLEGE

Official Course Outline

## COMPUTER SCIENCE INFORMATION SYSTEMS 230 – WINDOWS SERVER: ADMINISTERING

1. Course Number Course Title Semester Units Semester Hours

CSIS 230 Windows Server: 2 1 hour lecture: 16-18 hours

Administering 3 hours lab: 48-54 hours

32-36 outside-of class hours

for lecture

96-108 total hours

2. Course Prerequisites

A “C” grade or higher or “Pass” in CSIS 130 or equivalent.

Corequisite

None

Recommended Preparation

None

3. Catalog Description

Comprehensive hands-on system administration course focusing on the administration tasks essential to administering a Windows server infrastructure, including user and group management, network access, and data security.

4. Course Objectives

The student will:

a. Define server services and system functions, roles and properties; command line and graphical user interface tools and utilities; network security considerations; and the AD infrastructure and functions.

b. Deploy and manage server images.

c. Configure network name resolution services, including: DNS, Dynamic DNS, DNS server records, forward and reverse lookup zones, secondary zones and stub zones.

d. Configure network access, including: remote access, secure socket tunneling, Internet protocol security (IPsec), and network policy server.

e. Configure network file and print services, including: distributed file systems, encryptions, file server resource management and audit policies.

f. Configure and manage AD functions, including: authentication, domain controllers, backup and recovery, account policies, and advanced Group Policy Object (GPO) management.

5. Instructional Facilities

Computer equipped classroom with Internet access and appropriate software and hardware.

6. Special Materials Required of Student

1. File storage system
2. Access to web-based course material

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7. Course Content

a. Windows server operating system configuration using both graphical user interface and command line tools

b. Configuration and implementation of group policy infrastructure, user and services accounts, and Active Directory (AD) domain services

c. Configuration and troubleshooting of Domain Naming Services (DNS) and the network policy server role

d. File system optimization and security

e. Implementing system update management services

8. Method of Instruction

a. Hands-on practice

b. Lecture

c. Demonstration

d. Topical discussion of current operating system trends and issues

9. Methods of Evaluating Student Performance

a. Written quizzes and exams including a final that measure students’ ability to describe computer operating system functions and characteristics analyze a scenario and choose the alternatives and troubleshooting options.

b. Scenario-based lab activities that measure students’ ability to configure specific operating system functions or subsystems, troubleshoot/analyze imposed system problems, investigate potential alternatives, and implement corrective action to achieve a determined result.

c. Practical application-based examinations that measure students’ ability to evaluate scenario-based computer configuration requirements/problems, analyze/troubleshoot the operating system configuration, and apply the correct configuration changes to achieve the correct results.

10. Outside Class Assignments

a. Text reading assignments

b. Virtualized Labs

c. Tests and quizzes

d. Discussion item research and responses

11. Texts

1. Required Text(s):

Tomsho, Greg. *MCSA Guide to Administering Microsoft Windows Server 2012/R2, Exam 70-411*. Boston, MA: Cengage Learning, 2015.

b. Supplemental: None

Addendum: Student Learning Outcomes

Upon completion of this course, our students will be able to do the following:

Given a computer troubleshooting or configuration scenario,

a. Deploy a Windows server image.

b. Design, create, and evaluate a DNS installation as part of domain controller promotion.

c. Design, create, and evaluate advanced AD and GPO implementations/configurations.

Date approved by the Governing Board: May 15, 2018