GROSSMONT COLLEGE

Official Course Outline

## COMPUTER SCIENCE INFORMATION SYSTEMS 130 – WINDOWS SERVER: INSTALLING AND CONFIGURING

1. Course Number Course Title Semester Units Semester Hours

*Based on a 16-18 week format*

CSIS 130 Windows Server: 2 1 hour lecture: 16-18 hours

Installing and Configuring 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 112 or equivalent

Corequisite

None

Recommended Preparation

None

3. Catalog Description

Comprehensive hands-on system administration course focusing on the installation, initial implementation, and configuration of Windows server software core services, including: Active Directory (AD) Domain Services, local storage, file and print services, group policy and server virtualization technologies.

4. Course Objectives

Students will:

a. Define server and network operating system functions, roles and properties; tools and utilities; directory services; security considerations and utilities; and the major elements of the Windows server operating system architecture.

b. Install and configure server software, core server functions, local storage, file and share access, printing services and remote management.

c. Install and configure Hyper-V virtualization software and deploy virtual machines across a network.

d. Configure and manage core server networking services including: Internet Protocol versions 4 and 6 (IPv4 and IPv6), Dynamic Host Configuration Protocol (DHCP), and Domain Naming Service (DNS).

e. Configure AD objects, including user, group and computer accounts; group policy; and group policy templates.

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

## COMPUTER SCIENCE INFORMATION SYSTEMS 130 – WINDOWS SERVER: INSTALLING AND CONFIGURING page 2

7. Course Content

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

b. Configuration of server roles

c. Configuration of Hyper-V virtualization software and deployment virtual machines

d. Deploy and configure core network services

e. Install and administer Active Directory (AD)

f. Create and manage AD Group Policy objects

8. Method of Instruction

a. Lecture and demonstration

b. Hands-on practice

c. 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. Reading assignments from textbooks

b. Virtualized labs configuring user accounts for a business environment

c. Online quizzes

d. Discussion item research and responses such as practical solutions to common problems in the Window Service environment.

11. Texts

a. Required Text(s):

Tomsho, Greg. *MCSA Guide to Installing and Configuring Microsoft Windows Server 2012 /R2, Exam 70-410*. Boston, MA: Cengage Learning, 2015

b. Supplementary texts and workbooks:

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, install, deploy, configure, and manage a Windows server project using current industry software and standards.

Date approved by the Governing Board: May 15, 2018