Montgomery County Community College
CIS 258
Advanced Windows Server Administration and Support
3-2-2

COURSE DESCRIPTION:
This course provides the students with the knowledge and skills necessary to install, configure, manage, and support a Windows infrastructure. Students will learn advanced deployment and configuration concepts, including the implementation of: Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Windows Internet Naming Service (WINS), network security, Remote Access Services (RAS), Internet Authentication Server (IAS), and Remote Installation Services (RIS). In addition, students will learn how to install, manage, configure and administer Windows Server 2008 R2/Windows 7 Active Directory. Virtualization of Student Servers will be employed throughout this course.

MICROSOFT COURSE EQUIVALENT:
Course 2153 - Implementing a Microsoft Windows Server 2008 R2 Network Infrastructure
Course 2154 - Implementing and Administering Microsoft Windows Server 2008 R2 Active Directory

PREREQUISITE(S):
CIS158 - Windows Server Administration and Support

CO-REQUISITE(S):
None

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

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
1. Manage a Windows Server network.	Lecture Discussion	Competency Checklist
2. Manage network security using protocols and PKI.	Lecture Discussion	Competency Checklist
3. Configure Remote Access to the network.	Lecture Discussion	Quizzes
4. Install, configure and support DHCP, DNS, WINS, RIS and IAS.	Lecture Discussion	Competency Checklist
5. Install, configure and manage web servers.	Homework Assignments	Quizzes

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
6. Publish resources in Active Directory.	Lecture Discussion	Competency Checklist
7. Manage and delegate control for objects in Active Directory.	Lecture Discussion	Competency Checklist
8. Create and implement Group Policies for domains.	Hands-On Lab Exercises Group Projects	Competency Checklist Live Computer Lab Demonstration
9. Manage operations masters.	Hands-On Lab Exercises Group Projects	Quizzes
10. Monitor and manage directory replication.	Hands-On Lab Exercises Group Projects	Quizzes
11. Design and deploy Active Directory, implementing Forests, Trees and Domains.	Hands-On Lab Exercises Homework Assignments Group Projects	Competency Checklist Live Computer Lab Demonstration Exams
12. Implement an Active Directory infrastructure based on business requirements.	Hands-On Lab Exercises Homework Assignments Group Projects	Competency Checklist Live Computer Lab Demonstration Exams

At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated results will be submitted to the Associate Vice President of Academic Affairs. The benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria*.

SEQUENCE OF TOPICS:
1. Installation of Windows Server 2008 R2 Server
2. Install and Configure DHCP, DNS, and WINS
3. Implement Network Security Using Protocols and PKI
4. Establish Remote Access to the Domain Using VPN and RAS
5. Increase Remote Access Functionality with IAS
6. Configure Windows Server 2008 R2 Server as a Router
7. Install and Configure IIS
8. Deploying Windows Server 2008 R2 Professional using RIS
9. Monitoring and Managing Network Resources
10. Design Active Directory to Business Functionality
11. Deploy Active Directory Forests, Trees and Domains
12. Create Users, Group and Computers with Active Directory
13. Publish Objects within the Active Directory
14. Create and Use Group Policy Objects within the domains
15. Configure and Support Directory Replication
16. Manage and Restore the Active Directory Database

LEARNING MATERIALS:
Textbook:
Morimoto et al, Windows Server 2012 Unleashed, SAMS, 2012, ISBN-13: 978-0672336225

Other learning materials may be required and made available directly to the student and/or via the College's Libraries and/or course management system.

COURSE APPROVAL:
Prepared by: Linda Moulton and Michael Moore   Date: 10/2001
Revised by: Jason Wertz   Date: 9/2006
Revised by: Larry Elias   Date: 7/10/13
VPAA/Provost or designee Compliance Verification: Date: 7/11/2013

This course is consistent with Montgomery County Community College's mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.