

Montgomery County Community College
 CIS 158
 Windows Server Administration and Support
 3-2-2

COURSE DESCRIPTION:

This course provides the student with the knowledge and skills necessary to perform day-to-day administrative tasks in a single or multiple domain Microsoft Windows Server based network. Students will learn how to implement system security, create users, establish network printing, backup system data and securely manage system resources. This course will also include topics on installation, configuration, security and troubleshooting in a Microsoft Windows environment using the most current version of the Server and Client operating systems. Virtualization of Student Servers will be employed throughout this course.

REQUISITES:

Previous Course Requirements

None

Previous or Concurrent Course Requirements

- CIS 155 PC Applications on Networks
- CIS 170 Networking Fundamentals (Cisco Semester 1), or equivalent experience

LEARNING OUTCOMES Upon successful completion of this course, the student will be able to:	LEARNING ACTIVITIES	EVALUATION METHODS
1. Explain the process for planning deployment of Windows Server on a server computer.	Lecture	Competency Checklist
2. Describe the process for determining user account policies.	Lecture	Competency Checklist
3. Demonstrate the creation, modification and deletion of user and group accounts.	Lecture Discussion	Quizzes
4. Construct and implement a security plan for files and folders on a network.	Lecture Homework Assignments	Competency Checklist

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
5. Explain how to troubleshoot common user problems in accessing network data.	Lecture	Quizzes
6. Install and configure Secure Windows Server and client environments.	Hands-On Lab Exercises Discussion Group Projects	Live Computer Lab Demonstration
7. Install and configure a Secure Windows Server network printing environment.	Hands-On Lab Exercises Discussion Group Projects	Competency Checklist Live Computer Lab Demonstration
8. Demonstrate the use of auditing functions to monitor security and network resource usage.	Homework Assignments	Quizzes
9. Prepare a comprehensive backup and restore plan for files and folders on client computers and servers.	Hands-On Lab Exercises Lecture	Competency Checklist
10. Demonstrate the correction of common problems in a Windows Server or client computer environment.	Hands-On Lab Exercises Lecture Discussion Group Projects	Quizzes
11. Explain and demonstrate the management of drive partitions and folders.	Lecture Discussion	Quizzes
12. Troubleshoot problems related to directory replication, synchronization and the boot process.	Hands-On Lab Exercises Lecture	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. Explain the Basic Functions of Windows Server 2012 R2/Windows 8

2. Demonstrate the Creation of Windows User Accounts
3. Create Group Accounts in Windows
4. Describe Appropriate Strategies for Securely Administering User and Group Accounts
5. Explain the Benefits and Techniques of Securing Network Resources with Shared-Folder Permissions.
6. Demonstrate the Securing of Network Resources and access controls with NTFS Permissions
7. Explain Authentication Methods and Configuration management.
8. Demonstrate the Procedures for Securely Configuring and Administering Network Printers
9. Describe the Procedures for Deploying Tools for Auditing Resources and Events
10. Explain How to Monitor Network Resources
11. Explain the Benefits of and the Procedures for Backing Up and Restoring Network Data
12. Describe the Principles behind the Windows Server 2012 R2/Windows 8 System Architecture
13. Demonstrate the Installation of Windows Server 2012 R2/Windows 8
14. Describe importance of regular updates and patching.
15. Configure the Windows Server 2012 R2/Windows 8 Work Environment
16. Describe the Procedures of Securely Managing System Policies and Services in a Windows Environment
17. Explain the Procedures for Managing Partitions, Fault Tolerance and the File System of Windows
18. Discuss Appropriate Measures to Undertake to Support Network Applications
19. Configure Logging and interpretation of log files.
20. Describe the Procedures for Allowing the Interoperation of Windows and Netware
21. Demonstrate the Secure Configuration of Network Clients

LEARNING MATERIALS:

Textbook:

Minasi et al, Mastering Windows Server 2012 R2, Sybex, 2014,
ISBN-13: 978-1118289426

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: Lee Bender	Date: 1/2002
Revised by: Alan Evans	Date: 4/2004
Revised by: Alan Evans	Date: 4/2006
Revised by: Larry Elias	Date: 7/10/2013
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 7/11/201

Revised by: Anil Datta, Linda Moulton and Marie Hartlein
VPAA/Provost or designee Compliance Verification:
Victoria L. Bastecki-Perez, Ed.D.

Date: 11/12/2013

Date: 11/15/2013

Revised by: Larry Elias
VPAA/Provost or designee Compliance Verification:
Victoria L. Bastecki-Perez, Ed.D.

Date: 10/20/2014

Date: 10/30/2014

Revised by: Anil Datta
VPAA/Provost or designee Compliance Verification:
Victoria L. Bastecki-Perez, Ed.D.

Date: 5/5/2016

Date: 6/2/2016

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.