GREENVILLE TECHNICAL COLLEGE

Business and Technology Division
Computer Technology
Course Syllabus
LAN Network Technologies IST 257

Credit/Contact Hours:
3.0

Prerequisite:
CPT 257

Co-requisite:
None

Course Description:
A study of network operating system technologies including network operating system architecture, the installation, configuration, monitoring, and troubleshooting of network resources, and network administration functions such as user/group maintenance, network security, print services, remote access, fault tolerance, backup, and recovery. *Note: Course correlates with Microsoft Windows 2008 and 2012 Server.*

Purpose of Course:
Provide students with the knowledge and skills necessary to understand, install, configure, and administer the Windows 2008 and the 2012 Server network operating system.

Required Texts:

1. MCSA Guide to Installing and Configuring Microsoft Windows Server 2012/R2; Greg Tomsho
   Cengage ISBN 13:9781285868653; ISBN 10: 128586865x

2. Hands-On Microsoft Windows Server 2008; Michael Palmer;
   Course Technology/Thomson Learning; ISBN 13:9781423902348; ISBN 10: 1423902343

2. NOTE: Students in traditional classes must access Blackboard for course-related information. Students in hybrid and online classes will access their online content through Blackboard.

Additional Materials:
SPECIAL NOTE TO ONLINE STUDENTS: Online students will be REQUIRED to come to the Barton Campus to complete hands-on labs. The number of required on-campus meetings will vary from class to class. Students should plan on at least 3 to 4 meetings. Online students will be required to complete the labs to satisfactorily complete the course. Also, the final examination for online students will be administered on the Barton Campus. The final examination will be scheduled at a time determined by the administration.

Course Outcomes:
Students who successfully complete this course will have demonstrated the skills required to accomplish the following objectives with a minimum competence level of 70 percent.

1. Identify Windows Server 2012 Editions, assess hardware requirements, configure the Server 2008 and Server 2012 environment and troubleshoot performance issues.

2. Implement and administer Active Directory, user accounts, groups, printers, shared folders and file permissions.

3. Configure data storage, DNS, WINS,DHCP, RAS and Group Policy

4. Install the Windows Server 2008 operating system, create a domain controller and configure related objects in a domain environment including user accounts, groups, printers, network drives, shared folders and file permissions.

The objectives of the IST 257 course are intended to meet the Computer Technology program level student learning outcomes.

Program Student Learning Outcomes:
Upon successful completion of the Computer Technology Degree students will be able to:

1. Install computer and network hardware.

2. Install computer operating systems and application software.

3. Design, create and test computer programming solutions.

4. Demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer assignments.

5. Analyze, troubleshoot, and correct computer related technical problems.

Revised August 2012

Greenville Technical College Core Competencies:

Communication Core Competency: Students will demonstrate effective written and oral communication skills to convey information, ideas, or opinions.
- Written Communication: Students will demonstrate effective written communication skills to convey information, ideas, or opinions.
- Oral Communication: Students will demonstrate effective oral communication skills to convey information, ideas, or opinions.

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Critical Thinking Core Competency: Students will demonstrate effective reasoning, problem solving, or quantitative skills to develop an opinion or conclusion.

- Critical Reasoning: Students will employ inquiry, analysis, and synthesis of information to formulate and/or evaluate an opinion or conclusion.
- Problem Reasoning: Students will design and formulate a strategy to answer a question or achieve a desired goal.
- Quantitative Reasoning: Students will be able to analyze numerical information or observable facts resulting in informed conclusions.

Information Literacy Core Competency: Students will be able to locate, evaluate, and use information effectively from diverse sources.

Professionalism Core Competency: Students will demonstrate conduct and etiquette appropriate to the community and chosen career.

- Professionalism: Students will display professional conduct and work habits.
- Teamwork: Students will collaborate with others to accomplish a shared goal.

Instructional Agreement:
This syllabus is an agreement between the student and instructor concerning course objectives, course content, grading and other policies and procedures particular to the course as well as any posted program, departmental, and divisional policies. It is also the student's responsibility to become familiar with the Student Handbook/College Catalog found in the Student Resource area of Blackboard.

Grading Scale:
Grades will be calculated as follows:

Major Tests	60 percent
Attendance, Homework, and Labs	15 percent
Final Exam	
	25 percent

NOTE: ALL TESTS AND EXAMS ARE RETAINED BY THE INSTRUCTOR.

Final letter grades will be issued as follows:

A	=	90 - 100
B	=	80 - 89
C	=	70 - 79
D	=	60 - 69
F	=	0 - 59

INCOMPLETES: An INCOMPLETE ("I") will only be approved if ALL of the following conditions exist:

- The student must have no more than 3 weeks (15-week term) or 1.5 weeks (8-week/10-week term) remaining to complete the course.
- The student must have a validated, documented reason why he/she cannot complete the course by the prescribed end date (illness, work situation, death, etc.).
- The student must be up to date with all work up to the point of the request for an Incomplete (no untaken tests or un-submitted labs, homework, etc.), and the student must have a passing grade average (C or higher) for all work submitted.

Course Policies:
Click here to enter text.
PLAN OF INSTRUCTION:

TEXT

CHAPTER   MAJOR TOPICS

Chapter 1 – Introducing Windows Server 2012- Server 2012 Text

1. Windows Server 2012 Editions
2. Windows Networking Models
3. Windows Server 2012 Roles

Chapter 2 – Installing Windows Server 2012- Server 2012 Text

1. Planning a Windows Server 2012/R2 Installation

2. Server Core
3. Using Features on Demand

Chapter 3 – Local and Remote Server Management- Server 2012 Text

1. Working with Server Roles and Features
2. Configuring Server Modes
3. Configuring Services

Test #1 – Chapters 1, 2, and 3- Server 2012 Text

Chapter 4 – Introduction to Active Directory and Account Management

1. Active Directory Basics
2. Containers in Active Directory
3. User Account Management
4. Security Group Management
5. Implementing User Profiles

Chapter 5 – Configuring, Managing and Troubleshooting Resource Access

1. Managing File and Folder Security
2. Configuring Shared Folders and Shared Folder Permissions
3. Implementing DFS

Chapter 6 – Configuring Windows Server 2008 Printing

1. Installing and Local and Shared Printers
2. Configure Printer Properties
3. Managing Print Jobs

Test #2 – Chapters 4, 5, and 6

Chapter 7 – Configuring and Managing Data Storage

1. Disk Management
2. Introduction to Fault Tolerance
3. Disk Backup

Chapter 8 – Managing Windows Server 2008 Network Services

1. Installing DNS Services
2. Implementing WINS
3. Implementing DHCP

Chapter 9 – Configuring Remote Access

1. Introduction to Remote Access
2. Configuring a VPN Server
3. Configuring a Dial-Up RAS Server

Chapter 10 – Securing Windows Server 2008

1. Introduction to Group Policy
2. Securing Windows Server 2008 Using Security Policies
3. Configuring NAT and IPSEC

Test #3 – Chapters 7, 8, 9, and 10

Chapter 11 – Server and Network Monitoring

1. Monitoring Server Services
2. Using the Task Manager
3. Using the Performance Monitor
4. Using Data Collector Sets

Chapter 12 – Managing System Reliability

1. General Problem Solving
2. Resolving Boot Problems
3. Using and Configuring the Event Viewer
4. Troubleshooting Connectivity

Prepare for Final Exam

Final Exam – Chapters 1-3(2012 Text) and Chapters 4-12(2008 Text) and Cumulative Hands-On Portion

The instructor reserves the right to modify the Plan of Instruction by changing the sequence of text material or testing content.

Disabilities Information

Students with disabilities, including those who were served in Special Education (resource or tutorial), should contact Student Disability Services (SDS) to discuss their need for services and accommodations. The main SDS office is located on the Barton Campus in the Student Center Building 105, office 113.

Staff can be reached by phone at 864 250-8202 or via email to DisabilityServices@gvltec.edu . Appointments are available at all satellite campus locations. Please check the GTC website for more information concerning Student Disability Services: http://gvltec.edu/disability-services/

Efforts have been made to ensure all materials presented in an electronic format are accessible for students with disabilities and the college is committed to this obligation. However, if you experience any difficulty accessing these materials please notify your instructor immediately so a solution can be provided. You may also contact Student Disability Services directly at 864-250-8202 or by email at DisabilityServices@gvltec.edu.

Students who need a PDF reader for accessibility of course documents presented in PDF format may download a free reader at https://acrobat.adobe.com/us/en/products/pdf-reader.html

Starfish

We care about your success! Greenville Technical College is proud to offer Starfish, a software tool designed to promote student success through coordination and communication between students, instructors and support staff.

When you set up your profile in Starfish, you can connect with services, faculty and staff at Greenville Technical College. The link to Starfish is

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located in Blackboard. Throughout the term, you may receive emails regarding your attendance, course grades or academic performance.

To benefit from this software, it is important that you check your Greenville Technical College Gmail regularly and read the Starfish alerts. If your academic performance begins to drop, you may also be contacted directly by a Success Coach or the Student Success Center.

Start, Stay, Succeed!