Computer Technology Department
Business and Technology Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: LAN Network Technologies
Course Number: IST 257

READ THIS SYLLABUS CAREFULLY
You should read this syllabus carefully and ask your instructor about *any* aspects that you do not understand. The syllabus is an agreement between you and your instructor concerning course objectives, course content, grading, and other policies and procedures particular to this course. The following information is specific to the course. Three additional documents are provided as attachments and *are considered a part of this syllabus*:

Attachment I:

Each instructor will provide a supplement to this syllabus. The supplement will include: a week-by-week plan of instruction based on the section in which you are enrolled; your instructor's name, office hours and/or office location; and your instructor's contact information and recommended best methods to contact your instructor.

Attachment 2:

The Department responsible for developing and teaching has policies and procedures in place to assure quality instruction for all students. These are attached as "Departmental Policies and Procedures."

Attachment 3:

Please note that it is your responsibility to read the current Student Handbook included in Greenville Technical College's Catalog. (See website.) The Student Handbook addresses specific academic and student conduct policies and procedures. Excerpts from the Student Handbook representing the policies and procedures most often referred to in working with students are provided for your convenience as "Attachment 3."

Approved by:

Phillip Cluley, Department Head for Computer Technology
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Approved by: Date: _____

Joel D. Welch, Ph.D., PE
Dean, Technology Division

This syllabus will remain in effect until revised or reviewed no later than August 2016.

COURSE SYLLABUS

Course Title: LAN Network Technologies
Course Number: IST 257

Lecture hours per week: 3.0   **Lab/Clinic Hours:**   **Semester credit hours:** 3.0

Prerequisites: IST 220

Catalog 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 Windows2008 Server.*

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

Required text(s) and other materials:

1. 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.

COLLEGE-WIDE STUDENT LEARNING OUTCOMES

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1. Communication – Students will demonstrate the ability to use active reading and listening skills and to produce effective written and oral communication for varying audiences.

2. Information Technology and Technological Literacy – Students will demonstrate competency in using computer technology within a field of study.

3. Critical Thinking/Reasoning – Students will demonstrate the ability to apply the scientific method, mathematical processes, and research skills to analyze and solve problems/issues by using reflection and reasoning to justify conclusions.

4. Professional and Personal Responsibility – Students will demonstrate the ability to exhibit conduct, attitudes, and etiquette appropriate to the student's community and chosen career. Students will demonstrate the ability to manage time, to use effective interpersonal skills, and to display responsible behavior.

5.   Diversity – Students will demonstrate the ability to recognize diversity and to demonstrate respectful conduct and attitudes toward all. Students will demonstrate the ability to explain how global issues impact life, work, and opportunities.

Revised December 31, 2012

COMPUTER TECHNOLOGY PROGRAM LEVEL 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

IST 257 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 2008 Editions, assess hardware requirements, configure the Server 2008 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.

PLAN OF INSTRUCTION:
 TEXT
CHAPTER   MAJOR TOPICS

Chapter 1 – Introduction to Windows Server 2008
1. Windows Server 2008 Platforms
2. Windows Networking Models
3. Implementing TCP/IP in Windows Server 2008

Chapter 2 – Installing Windows Server 2008
1. Preparing for Installation
2. Windows Server 2008 Installation Methods
3. Uninstalling Windows Server 2008

Chapter 3 – Configuring the Windows Server 2008 Environment
1. Using Server Manager
2. Configuring Server Hardware Devices
3. Configuring the Operating System
4. Understanding the Windows Server 2008 Registry

Test #1 – Chapters 1, 2, and 3

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 1-12 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.

IST 257 – COURSE SPECIFIC REQUIREMENTS

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.

IST 257 – EVALUATION AND GRADING INFORMATION

Grades will be calculated as follows:

Major Tests	60 percent
Attendance, Homework, and Labs	15 percent
Final Exam (70% written portion, 30% hands-on portion)	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.