

Computer Technology Department
Business/Public Service Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Network Design

Course Number: IST 260

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 1:

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:



Beau Sanders, Department Head, Computer Technology Department
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Approved by:



Lenna C. Young, Ph.D., Vice President for Academic Affairs
for the Dean of Business/Public Service Division
Dean's Office: (864) 250-8196, Barton Campus, Engineering Technology Building 103/104

14 Aug 2013
Date

This syllabus will remain in effect until revised or reviewed no later than August 2014.

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Course Title: Network Design

Course Number: IST 260

Lecture hours per week: 3.0

Lab/Clinic Hours:

Semester credit hours: 3.0

Prerequisites: IST 191 or IST 202 or IST 258, SPC 205 or SPC 209, and MAT 103 or higher. Computer Technology students must obtain a minimum grade of "C" in all CPT and IST courses.

Catalog Course Description: This course is a study of the processes and techniques required to identify the most attractive design solution of a telecommunications network-combining creativity, rigorous discipline, analysis, and synthesis – while emphasizing the solution in terms of cost and performance.

Purpose of the Course: Provide students in the Networking program with a capstone course that is designed to reinforce their skills in implementing, configuring, and maintaining a local area network to include physical configuration, logical configuration, security configuration, and wide area network connectivity.

Required text(s) or other materials:

1. Traditional and online students will use text books from previous courses.
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

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
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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 260 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. Create a network solution proposal based on predefined customer requirements.
2. Evaluate the customer requirements to identify and determine computer hardware and software requirements.
3. Design and implement a Windows 2003 network.
4. Design a network solution that includes a network domain structure, network security, and network connectivity.

The outcomes of the IST 260 course are intended to meet the Computer Technology program level student learning outcomes.

Revised 1/2009

IST 260 – MAIN TOPICS

This course features two main parts: **Guest Speakers and Field Trips with IT Leaders in the Upstate** and the **Network Department Performance Exam**.

The exact list of speakers and field trips will not be available until just before the semester starts. Based on previous semesters, topics covered by guest speakers and field trips to their businesses included:

- How to Start Your Own Computer Consulting Business
- Tour of a manufacturing plant to see how IT is implemented
- Tour of the Greenville County Schools System IT Department
- Resume Writing and Successful Interviewing Techniques
- Tour of the Greenville County Library System's IT Department
- Tour of Concentrix Cisco Support Center
- Tour of IBM facilities in Greenville
- Computer and Network Security

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

IST 260 – COURSE SPECIFIC REQUIREMENTS

The Network Department Performance Exam is a three to four hours long and requires participants to fully install, configure, secure, and troubleshoot a computer network with three servers, three different operating systems, two switches, two routers, a domain controller, and five firewalls.

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 five to eight class 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 260 – EVALUATION AND GRADING INFORMATION

Grades for this course will be calculated as follows:

- 1) Reports on Field Trips and Guest Speakers = 30% of Overall Grade
- 2) Network Department Performance Exam = 70% of Overall Grade

Final letter grades will be issued as follows:

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

Business/Public Service Division – Assistant Dean Information

During the semester, if you have any issues that need to be addressed at an administrative level, the Business/Public Service has two assistant deans in addition to the Dean who will be glad to speak with you about your concerns. They are available via email, phone, or in their offices as provided below:

Elizabeth Mann, Assistant Dean, Business/Public Service for Teaching and Learning
elizabeth.mann@gvltec.edu, (864) 250-8491, Barton Campus, Criminal Justice Building 121/124

Mary Locke, Assistant Dean, Business/Public Service for Student Services
mary.locke@gvltec.edu, (864) 250-8629, Barton Campus, Engineering Technology Building 103/304