GREENVILLE TECHNICAL COLLEGE

School of Business and Computer Technology
Computer Technology Department
Course Syllabus
IST 201
Summer 2019 Catalog Year

Credit/Contact Hours:

3.0

Prerequisite:

IST 220 and placement into MAT 105 or higher

Co-requisite:

None

Course Description:

This course is a study of current and emerging computer networking technology. Topics covered include safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI Model, cabling, cabling tools, Cisco routers, router programming, star topology, IP addressing, and network standards.

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Purpose of Course:

This course introduces students to fundamental networking concepts and technologies using a hands-on approach. In addition, the course will assist students in developing the skills necessary to plan and implement small networks across a range of applications. By the end of this course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

Internetworking Concepts is the first of four courses that may be used to prepare for the Cisco Certified Entry Level Technician (CCENT) or Cisco Certified Network Associate (CCNA) exam.

Required Texts:

Introduction to Networks v6 Labs & Study Guide, Edition: 1st;

- Cisco Networking Academy, Allan Johnson, Copyright 2017
- ISBN-13: 978-1-58713-361-9

Additional Materials, Supplies, Equipment, and Technology:

Blackboard portal website via gvltec.edu:

- Students in traditional classes must access Blackboard for course-related information.
- Students in blended classes will access their online content through Blackboard.

Cisco Net Academy:

- Students taking traditional, online, and hybrid classes must access netacad.com for unit tests, online skills assessments, and online labs.

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 Resources area of Blackboard.

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.

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.

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.

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. Explain the physical and logical functions of each layer of the OSI and TCP/IP reference models
2. Explain the Ethernet network architecture and identify technologies used in an Ethernet network.
3. Build and troubleshoot a simple Ethernet network
4. Design, calculate, and apply subnet masks and addresses to fulfill given requirements in IPv4 and IPv6 networks
5. Use Cisco command-line interface (CLI) commands to perform basic router and switch configurations

The outcomes of the IST 201 course are intended to meet the Computer Technology program level student learning outcomes.

Course Content:

Please refer to Syllabus Addendum in Blackboard to review the Tentative Course Schedule. Your instructor will provide a detailed, week-by-week plan of instruction along with method of delivery, testing, and assignment submission.

COURSE OUTLINE (Units)

- Course Introduction
- Exploring the Network
- Binary, Decimal and Hexadecimal
- Network Protocols and Communications
- IPv4 Addressing
- Configuring a Network Operating System
- Network Access
- Ethernet

- Subnetting Networks
- Network Layer
- Transport Layer
- IPv6 Addressing
- Subnetting IPv6
- VLSM
- Application Layer
- Build a Small Network

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

The final examination for traditional, online, hybrid, and blended class students will be administered on campus. The final examination will be scheduled at a time determined by the administration.

Revised January 2018

Course Policies:

Computer Technology students must obtain a minimum grade of "C" in all CPT and IST courses.

Please refer to Departmental Polices in Blackboard to review additional course and department policies.

Revised August 2018

Grading Scale:

Weighted Percentages:

Proctored Unit Tests	20 percent
Assignments*	15 percent
Labs (virtual and live equipment)	30 percent
Proctored Skills Based Assessments	20 percent
Proctored Final Examination	15 percent

* Assignments include netacad.com chapter exams, discussion board forums, traditional assignments, journals, and quizzes

Final letter grades will be issued as follows:

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

Revised January 2019

Students with Disabilities:

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 Adobe Reader (https://get.adobe.com/reader/).

Nondiscrimination Statement:

Greenville Technical College provides equal opportunity and affirmative action in education and employment for all qualified persons regardless of race, color, religion, sex, national origin, age, disability, sexual orientation, or veteran status.

The college complies with the provisions of Titles VI and VII of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972 and the Higher Education Amendments of 1986; Sections 503 and 504 of the Rehabilitation Act of 1973, as amended; the South Carolina Human Affairs Law of 1972; and with the Americans with Disabilities Act (ADA) of 1990 as well as the ADA Amendments of 2008 (ADAA).

For additional information on nondiscrimination policies, students should contact Student Disability Services, which coordinates Title II of the ADA/ADAA, Section 504 at (864) 250-8408 v/TTY; Title IX Coordinator at (864) 250-8144.

Technology Statement:

Greenville Technical College is not responsible for personal technology or internet access. Problems with computers, devices, or internet access are not acceptable for late work. When completing gradable coursework online, be sure to access a secure, reliable

internet connection (preferably hardwired). All technical questions should be directed to technical support (https://www.gvltec.edu/about_greenvilletech/tech_support)

Due dates for all assignments and quizzes/tests are listed on the Course Schedule/Plan of Instruction. All graded work is time-stamped when submitted, so your instructor can check the time of submission. In addition, you will receive a confirmation email message when Blackboard Assignments are submitted. You must provide this confirmation information in case of any dispute regarding the submission.

Computer labs are available at multiple camps locations and offer various hours as well as staff available for assistance. (https://www.gvltec.edu/student_resources/computer_labs)

Microsoft Office programs or PDF format are recommended for submitting assignments in Blackboard. Students can access portal.office.com, log in with their <username>@my.gvltec.edu email address and Blackboard/GTC4me password, then follow the prompts to install Microsoft Office free of charge.

Title IX Policy:

Greenville Technical College does not discriminate against any student on the basis of pregnancy or related conditions and will comply fully with Title IX regulations.

Absences due to medical conditions relating to pregnancy and maternity leave will be excused for as long as deemed medically necessary by a student's doctor, and the student will be given the opportunity to make up missed work. Documentation from the student's doctor is required. Students needing assistance may seek accommodations from the Title IX Coordinator or Student Disability Services. Please contact the Title IX Coordinator (TitleIX@gvltec.edu) or Student Disability Services (DisabilityServices@gvltec.edu) for additional information.

Attendance:

Attendance and participation are necessary for academic success. The student's record of attendance will begin on the first day of the course, even if registration occurs after the course has begun. Students are expected to attend and complete all scheduled instructional activities, both in class and online.

A student may withdraw from any course up to the published deadline. If the student drops the course during the add/drop period, no course tuition will be charged. If a withdrawal occurs after the drop/add period, tuition charges will result.

Please Refer to Addendum (referred to as 'Attachment 3') for details pertaining to current Attendance and withdrawal policies.

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 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!