

**GREENVILLE TECHNICAL COLLEGE**

**Business and Technology Division  
Computer Technology  
Course Syllabus  
Cisco Troubleshooting IST 204**

**Spring Semester 2019**

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**Credit/Contact Hours:**

3.0

**Prerequisite:**

IST 203

**Co-requisite:**

None

**Course Description:**

This course is a study of troubleshooting network problems

**Purpose of Course:**

This course provides the student with knowledge and skills in switching basics and intermediate routing. Students will learn how to design wide area networks, manage network protocols, network services, and network troubleshooting.

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### Required Texts:

**Textbooks are optional in IST 204.** Suggested Texts:

Connecting Networks v6 Companion Guide, Cisco Press, ©2018  
ISBN 978-1-58713-432-6

Connecting Networks v6 Labs and Study Guide, Cisco Press, ©2018  
ISBN 978-1-58713-429-6

*Revised January 2019*

### Additional Materials:

The Cisco curriculum is available at the website on **Cisco NetSpace (netacad.com)**. The text is used to facilitate the online curriculum. The online curriculum and review quizzes can be accessed with your user name and password. To receive full benefit from the online curriculum, be sure to visit links recommended and review audio portions.

The final exam will consist of an online assessment and a hands-on examination which will be taken on campus. Chapter tests will be taken outside of normal class meeting hours.

### Course Outcomes:

Upon completion of the course, the student will be able to successfully complete 80 % of the following tasks:

1. Identify the components and protocols used in Wide Area Networks (WANs).
2. Implement and configure WAN encapsulation protocols used to connect network devices.
3. Implement and configure Access Control Lists on a router.
4. Implement and configure DHCP and NAT services on a router.

*The outcomes of the IST 204 course are intended to meet the Computer Technology program level student learning outcomes.*

*Revised January 2009*

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### **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.

**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.

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- 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:**

Weighted Percentages:

Assignments and Quizzes	10 percent
Labs	30 percent
Unit Tests	20 percent
Skills Based Assessments	25 percent
Final Exam	15 percent

*All Unit Tests, Skills Based Assessments, and the Final Exam will be proctored and taken on the Barton Campus.*

*Revised January 2019*

**Final letter grades** will be issued as follows:

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

*Revised August 2018*

### **Course Policies:**

All IST204 students must take the final exam to complete the course.

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Please refer the Syllabus Attachment 1 to review the Tentative Course Schedule. The schedule outlines the chapters that will be reviewed, when tests will be given and when assignment and labs will be due.

The Cisco curriculum is available at the web site <https://www.netacad.com>. The text is used as an enhancement to the online curriculum. The online curriculum and review quizzes can be accessed with your user name and password. To receive full benefit from the online curriculum, be sure to visit links recommended and review audio portions.

### **IST204 Contents at a Glance**

- Chapter 01: WAN Concepts
- Chapter 02: Point-to-Point Connections
- Chapter 03: Branch Connections
- Chapter 04: Access Control Lists
- Chapter 05: Network Security and Monitoring
- Chapter 06: Quality of Service
- Chapter 07: Network Evolution
- Chapter 08: Network Troubleshooting

*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](mailto: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/) (<http://gvltec.edu/disability-services/>).

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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](mailto:DisabilityServices@gvltec.edu).

Students who need a PDF reader for accessibility of course documents presented in PDF format may [download a free 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.

### **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!**

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