

GREENVILLE TECHNICAL COLLEGE

School of Business and Computer Technology
Computer Technology
Course Syllabus
Cisco Router Configuration IST 202
Fall 2019

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Credit/Contact Hours:

3.0

Prerequisite:

IST 201 and placement into MAT 105 or higher

Co-requisite:

None

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Course Description:

This course is a study of LANS, WANS, OSI models, Ethernet, token ring, fiber distributed data interface TCP/IP addressing protocol, dynamic routing, routing, and the network administrator's role and function

Purpose of Course:

This course introduces the architecture, components, and operations of routers and switches in a small network. Students learn how to configure routers and switches for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.

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

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
- Router Configuration
- Router Concepts
- VLSM
- Route Summarization
- Dynamic Routing
- Switched Networks
- Switch Configuration
- SSH Configuration
- Switchport Security
- VLANS
- Inter-VLAN routing
- Standard Access Control Lists
- Extended Access Control Lists
- DHCP
- Network Address Translation for IPv4
- Device Discovery
- IOS Management

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.

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Required Texts:

Routing and Switching Essentials v6 Labs & Study Guide, Edition: 1st;

- Cisco Networking Academy, Allan Johnson, Copyright 2017
- ISBN-13: 978-1-58713-426-5

Additional Materials, Supplies, Equipment, and Technology (i.e. Webcams):

Blackboard portal website via gvlttec.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.

Grading Scale:

Weighted Percentages:

Proctored Unit Tests	20 percent
Assignments*	10 percent
Labs (virtual and live equipment)	30 percent
Proctored Skills Based Assessments	25 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

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F = 0 - 59

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Pass/Non-Pass Course Grade Option:

This course may be eligible for the Pass/Non-Pass Course Grade Option. A student must request this option prior to the withdrawal date of this course. If approved for this option, a grade of P will be assigned if the student earns a grade of C or higher. A grade of NP will be assigned for earning a D or F. Students are encouraged to talk with their instructor and meet with an advisor prior to requesting this option. Additional information may be found in the college catalog.

Instructional Continuity:

In the event of a disruption to the normal class schedule or planned activities for this course, alternate learning activities that may include other methods of instruction or locations may be implemented. If disruption occurs, your instructor will communicate through your GTC email (Gmail) account. Additionally, please make sure your contact information is accurate in GTC's emergency alert system (accessible in GTC4Me/Quick Access/GTC2me – Emergency Messaging).

Verification of Student in Online Classes:

Greenville Technical College is committed to student learning and the academic integrity of all courses. All GTC online courses are required to have at least one proctored learning activity that constitutes a significant percentage of the course grade, which may include a test, midterm, final exam, presentation or other assignment. Proctored is defined as an experience where an approved person ensures the identity of the student and monitors the learning activity. The proctored learning activity will be determined by the course instructor. The method of proctoring and any additional requirements, such as costs for students and/or trips to campus or approved testing center, will be explained in the course schedule/plan of instruction.

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. Understand and describe basic switching concepts and the operation of Cisco switches for IPv4 and IPv6 networks.
2. Configure and troubleshoot switch functions.
3. Understand and describe basic routing concepts and the operation of Cisco routers for IPv4 and IPv6 networks.
4. Configure and troubleshoot router protocols and functions.

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5. Use Cisco command-line interface (CLI) commands to perform router and switch configurations.

The outcomes of the IST 202 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.

Assessment of Student Learning:

Greenville Technical College is committed to continuous improvement of teaching and learning. Tests, assignments, and/or projects required in this course may be shared with college faculty and used for assessment purposes. Also, student input is necessary for improving instruction and is requested through course evaluations. Students will be notified when evaluations are available.

Administrative Withdrawals:

Students may be administratively withdrawn from this course for the following reasons:

- Not attending a course during the drop/add period including failure to meet the attendance criteria in an online course. In this case, a grade of WA will be assigned. This WA will not count as an attempt and will not affect GPA.
- For recorded absences exceeding 15% of the course contact hours prior to the withdrawal date. A grade of W will be assigned. For students who receive financial aid, this W will count as a course attempt but will not affect GPA.
- For non-attendance for 14 consecutive calendar days during any time in a semester (including non-class days, holidays, and weekends). A grade of FA (Failure due to Absences) will be assigned. For students who receive financial aid, this FA will

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count as a course attempt and will affect GPA. The college will use a grade point of zero for each credit hour to calculate the student's GPA.

Course Policies:

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

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

Revised August 2018

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. ***This must be done each term.*** The main SDS office is located on the Barton Campus in the Student Center Building 105, office 113.

Students may reach staff 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. Visit <http://gvltec.edu/disability-services> for more information.

The college is committed to providing materials that are accessible to all students. However, if you experience any difficulty accessing materials, please notify your instructor immediately so that we can provide a solution. 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 to access course documents presented in PDF formats may download Adobe Reader from <https://get.adobe.com/reader>.

Blackboard Ally

Blackboard Ally is a tool to improve students' experiences within online courses. It enables students to convert files in a course to more accessible formats such as HTML, electronic braille, audio and more. For more information, refer to [Blackboard Ally for Students](#) located in Student Resources in the course menu.

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

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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. For details, visit https://www.gvltec.edu/about_greenilletech/tech_support.

Students can access due dates for all assignments and quizzes/tests 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 you submit assignments via Blackboard. You must provide this confirmation information in case of any dispute regarding the submission.

Computer labs are available at multiple campus locations and offer various hours as well as staff who are available for assistance. For more information, please visit https://www.gvltec.edu/student_resources/computer_labs.

Students should use Microsoft Office programs or PDF format for submitting assignments in Blackboard. Students can access <http://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.

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. The link to Starfish is located in Blackboard.

Inside Starfish, you will find your Student Success Team with your instructor, advisor, academic coach, and others you may be directly connected with at the college. Setting up your Starfish profile and completing the Starfish Intake form will provide your Success Team with valuable information to guide your success.

Throughout the semester, you may receive emails regarding your attendance, academic performance, or course grades. Additionally, faculty and staff may send kudos celebrating successes. It is important that you check your Greenville Technical College Gmail regularly for Starfish alerts and kudos.

FERPA Policy:

Because Greenville Technical College abides by FERPA privacy guidelines, personal email accounts may not be used for any College-related communication. Faculty and students must use the college Gmail system only.

Start, Stay, Succeed!