



ADVANCED CISCO ROUTER CONFIGURATION

Course Syllabus

Date 11/28/11

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COURSE NUMBER: IST 203

PREREQUISITE(S): IST 202 with a grade of C or above

CO-REQUISITE(S): None

COURSE DESCRIPTIONS This course is a study of configuring Cisco routers and switches.

TEXTBOOK(S): On-line curriculum for Exploration CCNA 3; Course Booklet, ISBN: 1-58713-254-0, CISCO Press, 2010; lab manual for IST 203 available in SCC Book Inn

REFERENCE(S): Online curriculum

OTHER REQUIRED MATERIALS, TOOLS, AND EQUIPMENT: Notebook for labs, notes and assignments

METHOD OF INSTRUCTION: Lecture/lab projects

GRADING SYSTEM:

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

GRADE CALCULATION METHOD:

Online tests	=	30%
Labs/Packet Tracer activities	=	30%
Written final exam	=	20%
Skills final exam	=	20%
	=	<u>100%</u>

ATTENDANCE POLICY: The student is responsible for punctual and regular attendance in all classes, laboratories, clinical, practica,

internships, field trips, and other required class activities. The College does not grant excused absences; therefore, students are urged to reserve their absences for emergencies. When illness or other emergencies occur, the student is responsible for notifying instructors and completing missed work if approved for late submission by instructors.

The student is tardy if not in class at the time the class is scheduled to begin and is admitted to class at the discretion of the instructor.

Instructors maintain attendance records. However, it is the student's responsibility to withdraw from a course. A student enrolling in and attending at least one course session remains enrolled until the student initiates a withdrawal.

Withdrawal Policy: During the first 75% of the course, a student may initiate withdrawal and receive a grade of W. A student cannot initiate a withdrawal during the last 25% of the course. Extenuating circumstances require documentation and approval by the appropriate department head and academic dean.

Absences for Religious Holidays: Students who are absent from class in order to observe religious holidays are responsible for the content of any activities missed and for the completion of assignments occurring during the period of absence. Students who anticipate their observance of religious holidays will cause them to be absent from class and do not wish such absences to penalize their status in class should adhere to the following guidelines:

1. Observance of religious holidays resulting in three or fewer consecutive absences: Discuss the situation with the instructor and provide written notice at least one week prior to the absence(s). Develop (in writing) and instructor-approved plan which outlines the make up of activities and assignments.
2. Observances of religious holidays resulting in four or more consecutive absences: Discuss the situation with the instructor and provide the instructor with written notice within the first 10 days of the academic term. Develop an instructor-approved plan with outlines the make up of activities and assignments.

**CLASSROOM
CONDUCT:**

ACADEMIC DISHONESTY: Students are expected to uphold the integrity of the College's standard of conduct, specifically in regards to academic honesty. All forms of academic dishonesty including, but not limited to, cheating on assignments/tests, plagiarism, collusion, and falsification of information will call for disciplinary action. Disciplinary action imposed may include one or more of the following: written reprimand, loss of credit for assignment/test, termination from course, and probation, suspension, or expulsion from the College. For further explanation of this and other conduct codes, please refer to the Student Handbook.

CELLULAR PHONES AND PAGERS/BEEPERS: Cellular phones, pagers and beepers are not permitted to be turned on or used within the classroom. Use of these devices during classroom time will be considered a violation of the student code as it relates to "disruptive behavior."

**CLASS/LAB
PROCEDURES:**

The Cisco curriculum is available at the web site <http://www.CISCO.com/web/learning/netacad/index.html>. 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 recommended links, review audio portions and complete labs.

Online module tests will be completed outside of class. You may complete them at home or somewhere on campus. Once you begin a test, you have 1 hour to complete it. So – be sure to have completed your studying and have your notes organized before beginning the test. Tests for each module will be activated on days and times determined during class discussion of the material.

Final assessment in this class consists of two parts, an online final and a skills-based exam. The skill-based exam is an individual test. The grade is based on the number of points earned during a 90-minute testing period including the set up, testing and debugging of a Class B network using routers, switches, VLANs, VLSM, OSPF or EIGRP.

The Learning Center, located in the rooms E-2 & E-5 of the East Building, provides computers for your use. Check the website <http://www.sccsc.edu/resources/tutoring/tlc> or call 592-4968 for current semester operating hours.

ACCOMMODATIONS: Students who need special accommodations in this class because of a documented disability should notify Student Disability Services by calling (864) 592-4818, toll-free 1-800-922-3679; via email through the SCC web site at www.sccsc.edu/resources/disabilities; or by visiting the office located in the East Building Room 30-B on the SCC Central campus. Contacting Student Disability Services early in the semester gives the College an opportunity to provide necessary support services and appropriate accommodations.

Program Department Chair

Mrs. Marcia Schenck
592-4839
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Inclement Weather Schedule:

- Check SCC Web Site: www.sccsc.edu
- Tune to **Channel-7** Local T.V. Station (CBS)
- Tune to an FM/AM Local radio station

**COURSE OUTCOMES
& OBJECTIVES:**

Upon satisfactory completion of this course, the student will be able to:

- I. Describe basic Layer 2 bridging and switching processes.
 1. Design a LAN given function and number of servers and hosts, throughput requirements, response requirements and access to resources.
 2. Discuss how LAN design can improve network performance.
 3. Provide examples of how voice and video over IP affect network design.
- II. Use switches in a network.
 1. Describe and identify the difference between access layer, distribution layer, and core layer switches
 2. Configure LAN switches
 3. Verify and manage LAN switch configuration

- III. Set up switches for redundancy
 - 1. Describe the five stages of Spanning Tree Protocol
 - 2. Set up multiple switches to communicate through STP.

- IV. Use VLANs in a network
 - 1. Cite advantages of VLANs
 - 2. Create, verify, and delete VLAN configurations
 - 3. Troubleshoot VLAN configurations

- V. Trunk multiple switches.
 - 1. Describe basic fundamentals of the VTP and VTP configuration.
 - 2. Configure basic inter-VLAN routing.
 - 3. Set up a network using multiple switches, VLANs and trunking.

- VI. Set up a wireless network.
 - 1. Describe components and basic operations of wireless LANs.
 - 2. Describe basic operations of wireless security.
 - 3. Configure and verify basic wireless LAN access.
 - 4. Troubleshoot wireless client access.

- VII. Set up, test, and debug a Class B network using Cisco routers and switches, incorporating the use of VLANs, VLSM, OSPF or EIGRP.

- VIII. Maintain documentation.

- IX. The ability to work with individuals possessing different opinions and abilities to accomplish a task within an assigned time limit.

