



Valencia Community College
Computer Engineering Technology (Networking)
Cisco Networking Academy, fall 2003
Class: CET 2625C
Room: 9-210
Certification Track: CCNP
Lecturer: Prof. Yousif, Net+, CCNA, CCDA, CCAI,
CCNP-Routing

Section: W01 12:00 PM – 4:30 PM F

Office: West Campus, 9-117

Office Hours:

M	9:00 AM	11:00 AM
T	9:00 AM	11:00 AM
W	9:00 AM	11:00 AM
R	10:00 AM	12:00 PM
F	9:00 AM	11:00 AM

Or by appointment

Phone: 582-1064; (Secretary) (407) 582-1904

E-mail: wyouisif@valenciacc.edu

Web Address: <http://faculty.valencia.cc.fl.us/wyouisif>



Course Description:

Building Scalable Cisco Internetworks (BSCI) focuses on Cisco routers that are connected in LANs and WANs, and typically found at a medium to large network sites. When the course is completed, students will be able to select and implement the appropriate Cisco IOS™ services to build a scalable, routed network. BSCN is part of the recommended training path for students seeking the CCNP (Cisco Certified Network Professional) certification.

Prerequisite: CET 2620C - Cisco Projects in Routing Design and Administration course or Proof of CCNA (Cisco Certified Network Associate) certification.

Expected Student Conduct

Valencia Community College is dedicated not only to the advancement of knowledge and learning but is concerned with the development of responsible personal and social conduct. By enrolling at Valencia Community College, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct. The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in the disruption of a class may be directed by the faculty member to leave the class. Violation of any classroom or Valencia's rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from class, disciplinary warning, probation, suspension, expulsion, or other appropriate and

authorized actions. You will find the Student Code of Conduct in the current Valencia Student Handbook

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities (West Campus SSB 102, ext. 1523)."

Text Material

- To Be Announced (On Line Curriculum will be used until the new book that maps to the new exam's objectives is out)

Lab Material

- Three-Ring Binder
- On Line Labs will be used until the new lab manual that maps to the new exam's objectives is out

CCNP-Routing (642-801 BSCI) Exam Preparation Kit

- To Be Announced

Cisco Academy Web Site

www.cisco.netacad.net

✓Student Name: first three letters of your last name + first Initial + _ + VCC

Example: a student with the name of Wael Yousif would use: **youw vcc**

✓Student Password: First 3 letters of your last name + last 4 digits of your SS#

Example: a student with the last name of Yousif and SS# 123456789 would use you6789

Lab Procedures

Will be done in lab 9-208 during class time, **and cannot be made-up.** If the student is absent on the day of the lab assignment he/she will not receive credit for that lab.

Chapter Tests

Will be given at the beginning of the class **and cannot be made up,** so if the student is late or absent, he/she will not receive credit for that test.

Grading System

End of Chapter Tests -----	20%	A	90-100
Labs -----	20%	B	80-89
Attendance and Participation -----	10%	C	70-79
Final Written (Must Pass to Pass the Class) -----	20%	D	60-69
Final Hands-On (Must Pass to Pass the Class) -----	30%		

Week by Week Agenda

WEEK	Chapter	DESCRIPTIONS	labs	Tests
8-29	1	Overview of Scalable Internetworks	<ul style="list-style-type: none"> ➤ 1.4.1 Introductory Lab 1 - Getting Started and Building Start.txt ➤ 1.4.2 Introductory Lab 2 - Capturing HyperTerminal and Telnet Sessions ➤ 1.4.3 Introductory Lab 3 - Access Control List Basics and Extended Ping ➤ 1.4.4 Implementing Quality of Service with Priority Queuing ➤ 1.5.1 Equal-Cost Load Balancing with RIP ➤ 1.5.2 Unequal-Cost Load Balancing with IGRP 	Semester 5 Pretest
9-5	2	Advanced IP Addressing Management	<ul style="list-style-type: none"> ➤ 2.10.1 Configuring VLSM and IP Unnumbered ➤ 2.10.2a VLSM 1 ➤ 2.10.2b VLSM 2 ➤ 2.10.2c VLSM 3 ➤ 2.10.2d VLSM 4 ➤ 2.10.3 Using DHCP and IP Helper Addresses ➤ 2.10.4a Network Address Translation – Static NAT and Dynamic NAT ➤ 2.10.4b Network Address Translation – Port Address Translation and Port Forwarding 	Chapter 1 Test

WEEK	Chapter	DESCRIPTIONS	labs	Tests
9-12	3	Routing Overview	<ul style="list-style-type: none"> ➤ 3.6.1 Migrating from RIP to IGRP ➤ 3.6.2 Configuring IGRP ➤ 3.6.3 Configuring Default Routing with RIP and IGRP ➤ 3.6.4 Configuring Floating Static Routes 	Chapter 2 Test
9-19	4	Routing Information Protocol V. 2	<ul style="list-style-type: none"> ➤ 4.4.1 Routing between RIPv1 and RIPv2 ➤ 4.4.2 RIPv2 MD5 Authentication ➤ Labs Catch-up Day 	Chapter 3 Test
9-26	5	EIGRP	<ul style="list-style-type: none"> ➤ 5.7.1 Configuring EIGRP ➤ 5.7.2 Configuring EIGRP Fault Tolerance ➤ 5.7.3 Configuring EIGRP Summarization ➤ 5.8.1 EIGRP Challenge Lab 	Chapter 4 Test
10-3	6	OSPF	<ul style="list-style-type: none"> ➤ 6.9.1 Configuring OSPF ➤ 6.9.2a Examining the DR/BDR Election Process ➤ 6.9.3 Configuring Multiarea OSPF 	Chapter 5 Test
10-10	6 (Contin.)	OSPF	<ul style="list-style-type: none"> ➤ 6.9.4 Configuring a Stub Area and a Totally Stubby Area ➤ 6.9.5 Configuring an NSSA ➤ 6.9.6 Configuring Virtual Links ➤ 6.10.1 OSPF Challenge Lab 	
10-17	7	IS-IS	<ul style="list-style-type: none"> ➤ 7.7.1 Configuring Basic Integrated IS-IS ➤ 7.7.2 Configuring Multiarea Integrated IS-IS 	Chapter 6 Test

WEEK	Chapter	DESCRIPTIONS	labs	Tests
10-24	7 (Contin.)	IS-IS	<ul style="list-style-type: none"> ➤ 7.7.2 Configuring Multiarea Integrated IS-IS (Continued) ➤ 7.7.3 Configuring IS-IS Over Frame Relay (Bending) 	
10-31	8	Route Optimization	<ul style="list-style-type: none"> ➤ 8.5.1 Configuring Distribute Lists and Passive Interfaces ➤ 8.5.2a Configuring Route Maps ➤ 8.5.2b NAT: Dynamic Translation with Multiple Pools Using Route Maps 	Chapter 7 Test
11-7	8 (Contin.)	Route Optimization	<ul style="list-style-type: none"> ➤ 8.5.3 Redistributing RIP and OSPF with Distribution Lists ➤ 8.6.1 Route Optimization Challenge Lab 	
11-14	9	BGP	<ul style="list-style-type: none"> ➤ 9.11.1 Configuring BGP with Default Routing ➤ 9.11.2 Configuring BGP with NAT ➤ 9.11.3 Using the AS_PATH Attribute ➤ 9.11.4a Configuring BGP and EBGP Sessions, Local Preference and MED 1 	Chapter 8 Test
11-21	9 Contin.	BGP	<ul style="list-style-type: none"> ➤ 9.11.4b Configuring a Route Reflector and a Simple Route Filter ➤ 9.11.4c The BGP COMMUNITIES Attribute ➤ 9.11.4d BGP Route Reflectors and Route Filters ➤ 9.12.1 BGP Challenge Lab 	

WEEK	Chapter	DESCRIPTIONS	labs	Tests
12-5		Skills Based Practice Test		Chapter 9 Test
12-12		Final Exam (Skills Based)		
12-19		Final Exam (Written)		

Department of Engineering & Technology
Computer Engineering Technology (Networking)
Rules and Comments

- **Absolutely no food or drinks** are allowed in the classrooms or laboratories.
- All Assignments (Homework, Pre-labs, and Lab reports) are due at the beginning of each class period.
- Student must be ready to perform the required laboratory exercises upon the arrival to the lab.
- **Lab Approval** – All lab exercises must be approved and signed by the instructor or lab personnel. Labs without signature will not be accepted. To receive credit for the work, the lab record must be turned in at the final exam week. Student is responsible for the lab sheet and will **NOT** be give credit if the lab sheet is lost. **All labs must be done during class or during open lab hours! Credit will not be given for labs done off campus.**
- **"Lab No Show Policy"** 20 points will automatically be deducted from the lab report relating to the experiment that was not performed during the established lab portion of the class. **More than 3 "Lab No Shows"** could result to an automatic withdrawal from the course.
- All exams are closed book and closed notes unless stated otherwise.
- More than three unexcused lecture absences could result in grade **F** or Withdrawal from the course.
- Final exam is comprehensive. **Failing to take the final exam will result in grade F.**
- It is the student's responsibility to withdraw from the course. Any withdrawal after the withdraw deadline could result in **WF**.
- **Beepers**, and **Cellular phones** must be turned off or put on silent mode during the class periods.
- No make-up labs, Quizzes, Homework, or exams are permitted unless prior arrangement with the instructor has been made.
- If the student is absent or has missed any part of the class, then it is the student's responsibility to obtain the missed information from the instructor or other students.
- You must satisfactorily complete all the course requirements in order to receive a passing grade. The requirement could include;

In -class requirements (Exams, Quizzes, Homework, & Projects).

Laboratory requirements.(Hands-on Experiments, Lab Reports, and Lab Final Exam).

- **Disruptive Behavior:** Any student engaging in disruptive behavior will be advised on the first offense and will be **dropped** from the course on the second offense.
- No surfing the net, checking e-mail, or chat room is permitted during the class/lab periods. The instructor has the right to dismiss the student from the class or course.

- Cheating is prohibited. Any student caught cheating, the instructor has the right to withdraw the student from the class and recommend expulsion from the program.

Important Dates

Sep 2	Withdraw/Refund
Sep 1 and 16	Classes Do Not Meet
Oct 7	Faculty Work Day (Classes Do Not Meet)
Oct 7	College Night
Oct 31	Withdrawal Deadline for a “W” Grade
Nov 26-30	Classes Do Not Meet
Dec 13-19	Final Exam Week

Graduation

The following are some steps that you should follow:

1. Apply for graduation at Record Office in SSB room 204.
2. Make sure that you have met all the graduation requirements.
3. Before the start of your final semester submit an unofficial degree audit (use Atlas) to the program director Nasser Hedayat for evaluation.

Required/Optional Equipment

For your information both CET and EET laboratories are equipped with all the necessary software and equipment that can be utilized during the class and open lab times.

Required materials/equipment

- *Textbooks and laboratory manuals for the registered classes.*
- *Scientific calculator such as Casio fx-115W Plus or equivalent.*
- *Digital Kit (available at VCC bookstore).*
- *Network Cable Kit for CET 2486C(available at VCC bookstore).*

Optional Materials/Equipment

The following are some materials/equipment that are optional, and may enhance learning and education. To repeat the lab assignments outside the college, students should have access to the following materials/equipment.

- *MultiSim simulation software*
- *500 MHz Pentium III computer with Windows 2000 Server OS, 4 gigabytes hard disk, and 96 MB RAM.*
- *One network card (3Com 3c905).*

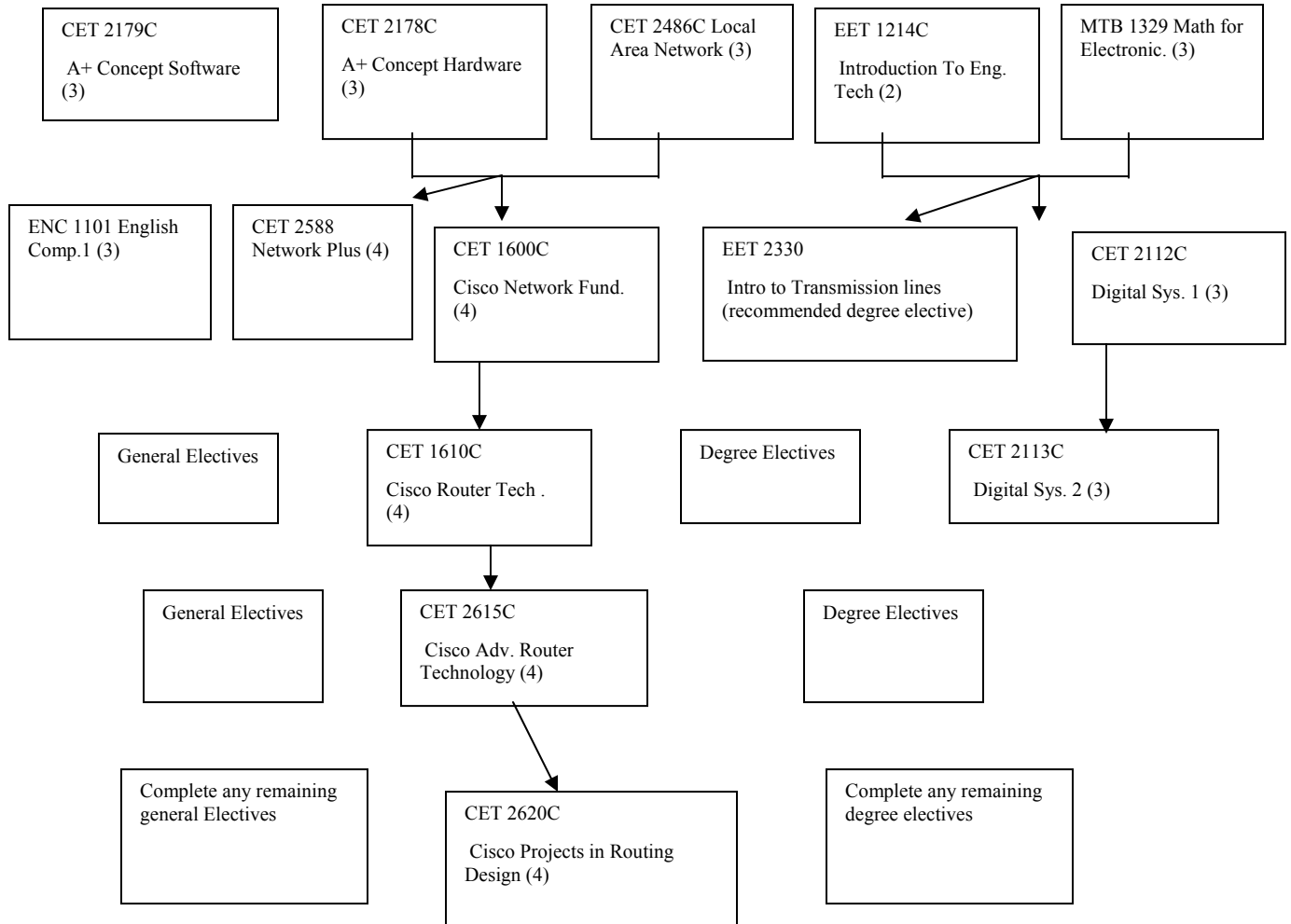
Note: Computer Engineering Technology students need access to the following additional equipment.

- *500 MHz Pentium III computer with Windows 2000 Server OS, 4 gigabytes hard disk, and 96 MB RAM.*
- *Two network cards (3Com 3c905).*
- *Three 6' cat 5 network cables w/RJ-45 connectors*
- *One 4- port hub with RJ-45 connectors.*
- *Router and Switch Simulation Program*

If you have any question or concern feel free to contact:

Nasser Hedayat, Program Director
Building 9 room 118
(407) 582-1312
e-mail: nhedayat@valenciacc.edu

Computer Engineering Technology (Networking) Cisco Specialization



**Electronic Engineering Technology and
Computer Engineering Technology (Networking)
Recommended Degree Electives**

Recommended Course	Credit Hours	Prerequisite
EET 2330 Introduction to Transmission Lines	3	MTB 1329 Mathematics for Electronics
EST 2220C Introduction to Fiber Optics	3	EET 2330 Introduction to Transmission Lines
EST 2221C Introduction to Electro- Optical Devices	3	EST 2220C Introduction to Fiber Optics
CET 2786 Wide Area Network	3	CET 286C Local Area Network
CET 2123C Fundamentals of Microprocessors	4	CET 2113C Digital System II
CET 2811 Microsoft Windows XP	4	CET 2252C A+ Concept Hardware CET 286C Local Area Network
CET 2810 Ms Exchange 2000 Server	4	CET 2792 MS 2000 Server
CET 2812 SQL Server 2000 Administration	4	CET 2794 MS 2000 Directory Services
Any other Valencia courses with CET course prefix		See college catalog

For further information please consult with your instructors.