



CET 1610C CCNA Semester 2 version 3.1

Syllabus

2004 Summer Term D

Last revised June 24, 2004

Instructor: William Kelly

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Office Hours : Before or after class

Term: 2004-4

Classroom: 1715C

Section: 0185

Time: M-R 1300-1510

Course Description: Basic router terminology and configurations are studied in this course. The student will study Router Components, Router Configuration, IDS, TCP/IP, IP Addressing, and Router Protocols. . This is one of the four courses designed to prepare a student to take the Cisco Certified Network Associate Exam (CCNA).

Required Textbook: None

Supplemental Materials: CCNA 1 and 2 Lab Companion, Third Edition, Cisco Press, 2003.

Major Learning Outcomes: By the end of the course, the student will:

Understand the following terminology

Router Theory

Router Components

Router Setup and Startup

Router Configurations 10S

TCP/I P

IP Addressing

Routing Protocols

Perform the following:

Configure a Router

Assemble basis PC Hardware

Install Software

Specific Performance: The student will:

1. Build a network at layer 1 level.
2. Console into the router in user and privileged mode.
3. Access various router components, remotely access the router, and test network connectivity.
4. Use the dialog to setup a router the first time it is used.
5. Perform basic router configuration.



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5. Load CISCO 10S software from flash, a TFTP server, and ROM.
7. Monitor ARP tables too remotely troubleshoot a router.
8. Address and configure a network.
9. Add RIP and IGRP to the router configuration.
10. Install and configure a 5-router network in 50 minutes.

Attendance and Tardiness: *This class will meet at 1300hrs - 1510 hrs Monday through Thursdays.* The Student Handbook states that a student is allowed one more absence than the number of times the class meets per week. After that, the instructor may withdraw the student from the course. However, because this is a six-week course, the number of absences is cut in half before the instructor can withdraw you. Additionally, three tardies or leaving class early three times will count as one absence.

Quiz/Test Retake Policy: If it's unavoidable for you to miss a class which in turn causes you to miss a quiz, then you can make up the quiz during the next class period. If you don't take the final exam then the final and the untaken quizzes remain zeros in your final grade calculation.

Assessments themselves can be learning experiences. It's possible you missed the point of a chapter entirely despite every learning effort you made or maybe you were not in the proper mental attitude for success that day. Cisco treats the chapter assessments as a way for you to learn. For that reason I will allow you to retake any ONE quiz of your choice during the semester. The retake score (*whether it is higher OR lower*) will automatically substitute for the previous quiz score. There are no retakes on the final exam.

If you want another instructor in the IT department to proctor your quiz retake outside of class (and thus conserve our limited class time) please do the following: Write on half a sheet of notebook paper, "I took quiz (enter quiz number) using only my Cisco Engineering notebook and my sample quiz handout". Make sure to include the current date, sign it, and have the other instructor countersign. In this way I can certify every quiz was taken under the same testing conditions.

IMPORTANT NOTE: *It is the students responsibility to schedule any makeup quizzes!!*

Classroom Behavior: The classroom should be an environment where everyone is comfortable learning. Each student should respect others and not engage in any behavior that rises to the level of disruption. Of course many people will state that judging



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disruptive behavior is subjective. The standard I will use is simply, 'Is the learning of another student or students impaired'. Many behaviors may be perfectly legal (such as wearing a very tall hat); however, if a student behind you can't see then you have disrupted that student's learning experience. I also ask that you turn cell phones to quiet or vibrate mode or turn them off altogether during the lecture portion of class. The complete code of conduct is listed in the student manual. Any behavioral problems that can't be dealt with using a polite conversation between the instructor and the student will be referred to the Chief Judicial Officer of the College (Peter Wilkins).

Academic Dishonesty: In any large college campus it is inevitable that a few students will try to gain an unfair advantage through plagiarism. Web searching during quizzes or exams, opening other windows to view the curriculum, text messaging on cell phones, instant messaging, and other high and low tech. forms of passing or finding answers other than material specifically allowed by the instructor is not permitted during Cisco Exams. I take any form of cheating very seriously and will deal with it according to the policies in PJC's Student Handbook.

Student Concerns: If you have any problems or concerns regarding this class the first person to talk to is the instructor so that we can resolve them at this level. It is your prerogative to take any problem or concern to any administrative level you desire; however, almost all student concerns stem from a difference in perception between the student and instructor and can be quickly resolved if you bring them to my attention. Some examples of concerns (by no means an exhaustive list) might be disruption from another student, a perceived lack of attention from the instructor to your problems in class, disagreement with the structure of the class, defective equipment that is hindering your learning experience, etc.. Rather than letting any problem simmer for days or weeks please pull me aside before, during, or after class so we can jointly address your concern; thereby, you can receive the maximum benefit from the class. If you choose not to discuss your concerns with me you can contact the IT Department Director, Robert Pierce at 484-1950 during business hours. His e-mail address is RPierce@pjc.edu.

Accuracy of the Classroom Materials: This Cisco curriculum is well thought out; however, despite all the checks and balances put into ensuring the material is accurate it is always possible for problems to arise. Sometimes there are typographical errors in the lab manual listing command sequences that don't work. Some of those problems can be traced to a different IOS version in the case of routers. With Software it's possible Cisco operated with or without a patch that either alters a command syntax, alters its output, or removes a software package deemed obsolete. Additionally, labs occasionally will have commands that are not covered in the online curriculum due to an oversight in the review process. Finally, some quiz question can seem to have confusing wording. I have no direct control over the online content, quiz questions, or mistakes in the lab manual. If you have a continuing concern about a particular quiz question for which you feel you should have received credit you should address that to the Cisco Help



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Desk which is open 24/7. They can be reached at cisco@help.cisco.com.

ADA: PJC complies with all statutory ADA requirements. If you require any special classroom or testing accommodations please talk with the instructor as soon as practicable at the beginning of the semester.

E-mail to Instructor: It is rare for me to go a week without receiving one or more e-mails containing a harmful attachment. For this reason I don't accept any e-mails that contain attachments or scripts. Please send e-mails to me in plain text. Any e-mails with attachments or scripting will be deleted automatically without being read. Thanks in advance for your understanding in this matter.

Letters of Recommendation: I don't write letters of recommendation to students I have only know for one term. If you plan on receiving a degree from PJC you should form a professional relationship with your faculty academic advisor or the IT department head and ask them about the possibility of receiving a letter of recommendation after your degree program is completed.

Requirements: The student is required to complete all assigned Chapter Exams. There will be approximately 2 chapter exams per week. The chapter exams will be closed book as will the final exam. You will be allowed to use your engineering notebook and the sample quiz from my website on your chapter tests but not on your final exam. You will be allowed to retake a chapter exam but there are no retakes on the final exam. All exams except the skill exam are administered on-line from the Cisco Academy Website.

Withdrawal Policy: If someone feels they will not be able to complete the class then he or she should withdraw by the final withdrawal date. After 70% of the class has been completed the college will not allow me to withdraw you and you **WILL** be assigned a final grade. Incompletes can only be given if 70% of the class work has been completed and there is reasonable chance of passing. *Please see the college registration booklet for the withdrawal dates* stating when various levels of refunds can be issued as well as the final withdrawal date. The below dates are listed for your convenience but the PJC catalog will always be the final authority.

Important Academic Dates

Holiday for SU 2004 Term D	July. 5, 2004
Last Day To Withdraw for Term D	July 22, 2004



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Grade Determination:

Lab Book: 10%

Chapter Exams: 66%

Final Exam: 10%

Skills Exam: 10%

Voucher Exam 4%

Final Exam- Cisco online test

Grading Scale: *(All numbers are inclusive of the beginning and ending number)*

90	-	100	A
87	-	89	B+
80	-	86	B
77	-	79	C+
70	-	76	C
67	-	69	D+
60	-	66	D
< 60			F

Lab Book Grading: The lab book will be graded the last day of class while you are taking your final exam. The grade is based on the percentage of lab assignments completed.

Case Study Grading: Due to the compressed nature of the class a presentation is not required; however, you are required to participate in class discussions on how to solve issues related to the case study which will be presented in class.

A grade of 70 or better is required on the voucher exam to be given a voucher from the Cisco Networking Academy worth 50 percent of the cost of certification testing (currently a \$62.50 value).

How can you succeed in this class?

Attend the Classes: Even if you study at home you can benefit from the classes tremendously by hearing and seeing the material presented by the instructor. You may pick up insights that you wouldn't notice from just studying at home. Also, if you invest the time to come to class the chances are much higher that you will make an effort to learn something. Home has many distractions; whereas, I will strive to keep the classroom free from disruptions to foster a learning environment.



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Web-based Material: I place my PowerPoint presentations, extra practice quizzes, and other handouts online at <http://proteus.ui.tripod.com>. Here you will also find a copy of the syllabus and other course-related materials. The PowerPoint slides are a great summary of the main points of a chapter. Although it is optional, I highly recommend you print out the PowerPoint slides three to a page and take notes as I give the presentation. At the end of the semester you can staple or bind the presentations with your syllabus and the result will be a comprehensive study manual for the semester. Why would you want a study manual at the end of the term? Organizing all your notes will make reviewing for the final exam much easier and you will be able to review more efficiently for your CCNA exam after you complete your fourth semester of the Networking Academy.

Online Curriculum: Cisco recommends that 80% of your time be spent on the online curriculum. Education and technology specialists have created the online material and constantly release revisions to meet the revised certification objectives and changing technology. You can be assured the course material is up-to-date and gives you excellent preparation for your CCNA certification exam.

Your Textbook: Don't discount the value of your textbook if you have purchased one! I have yet to find an efficient way to use a highlighter on a web page. It may be much more natural for some people to open a book and read 5 or 10 pages. Regardless of whether you use primarily use the online material or the book I have a study secret that will help you. Whenever we go to sleep all the events of the day get replayed in our minds. We may not consciously remember this complete replay but it happens. Your mind takes the events of the day from short term storage (like a temporary floppy disk) and it tries to find the precise place to place the information in your neural network. It also seems that material read just before sleep (even if you don't pay particular attention to the technical details) is retained at a slightly higher level and is easier to tackle the next day. This helpful hint is from my experience but if there is a chance it will help you then you may want to try it.

E-Labs: Each semester of Cisco varies in its lab content. The first semester only has a couple of very basic labs. The intensive routing labs begin during the second semester. If there is an e-lab then it will be listed in your text and online. Although completion of the e-labs is optional, you can gain great simulated router experience at home. The e-labs are good for helping reinforce the commands; therefore, if you seem to be overwhelmed with the commands OR if you want to practice the important commands before a lab or quiz then the e-labs will help you tremendously.

Cisco Networking Lab Room at PJC: The Information Technology Department at PJC wants to see you succeed and to that end every effort is made to have open hours in the Router lab where you can work alone or with others on the routers. You may need to



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make up a lab or you might just want more practice to raise your proficiency level configuring the routers. The CCNA 1 class has very few lab requirements; nevertheless, you can perform any lab work during normal class hours.

Text output from Labs: I encourage but don't require you to capture all of the output from your labs. By the time you reach Semester 4 you are probably familiar with the "capture text" option of HyperTerminal. The output from your labs is a powerful tool for learning about router operation. You may spend your time in class just "setting" up the lab and quickly running the commands but if you save the output you can completely review all the labs and learn new information you may have missed the first time around. I personally refer to lab outputs from years past and still learn new things. E-labs are great learning tools but they can't compare to the actual router output you have captured while performing the labs on real routers.

Cisco on the Internet: The Cisco website at <http://cisco.netacad.net> and <http://cisco.net> provides more material than you could read in many semesters. You will find extremely detailed technical information about Cisco's products. No, the Cisco site is not just an online sales brochure! The web site is an invaluable resource of routing theory. When you want to know more about a topic in class then the Cisco.net site is the first place you should search. Cisco is responsible for 85% of the world's routing equipment so if the answer is not on their site at first glance you should look for related terms. It's probably there somewhere!

Sample Quizzes: Each online chapter has an interactive quiz. You can take the quiz as many times as you want and no grade is recorded. Although it is not guaranteed, it is my experience that several questions on your real quiz are taken directly from the online quiz. You may also notice the book as a quiz at the end of the chapter. Usually they are the exact same questions as you can find online. You can also find some short answer questions at the end of some chapters in your textbook. If you can answer these questions you gain more confidence that you have met the learning objectives required for the CCNA certification exam.



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**Tentative Course Schedule for
Summer Term 2004-4**

The instructor reserves the right to amend, revise, or correct this syllabus with proper notification of the students enrolled in the class.

<i>Week</i>	<i>Dates</i>	<i>Topic</i>	<i>Quizzes</i>
1	June 23 – June 29	Classes Begin (intro) Module 1/Chap. 10 (WANs & Routers) Module 2/Chap. 11 (Intro to Routers)	1, 2
2	June 30 – July 7	Module 3/Chap. 12 (Configuring a Router) Module 4/Chap. 13 (Learning About Other Devices)	3, 4
3	July 8 – July 14	Module 5/Chap. 14 (Managing Cisco IOS Software) Module 6/Chap. 15 (Routing and Routing Protocol)	5, 6
4	July 15 – July 21	Module 7/Chap. 16 (Distant Vector Routing Protocols) Module 8/Chap. 17 (TCP/IP Suite Error and Control Messages)	7, 8
5	July 22 – July 28	Module 9/Chap. 18 (Basic Router Troubleshooting) Module 10/Chap. 19 (Intermediate TCP/IP)	9, 10
6	July 29 – Aug. 4	Module 11/Chap 20 (Access Control Lists (ACLs)) Review semester 2 curriculum/Final Exam	11, and Final Exam