



Computer Technologies Department



CSCO 221, section 2001 – Fall 2012
CCNA4 – WAN Technologies
T Th 5:00 – 9:50 PM SIER 110

INSTRUCTOR: Joseph Cheung

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Office hours:

Thursdays – 11:00 AM to 4:00 PM

or by appointment

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CISCO NETWORKING ACADEMY DESCRIPTION

CCNA 4 Exploration v4.0 – Accessing the WAN – Credits: 5

Accessing the WAN is the last of four courses leading to the Cisco Certified Network Associate (CCNA) certification*. The course focuses on IP addressing services, WAN technology and terminology, PPP, Frame Relay, access control lists (ACLs), and network troubleshooting.

*CCNA certification is not awarded by TMCC. Students wishing to be certified must pass the appropriate certification exam(s) offered by Cisco.

Prerequisites: CSCO 120, CSCO 121, and CSCO 220, all with a grade of “C” or higher

COURSE OBJECTIVES

CCNA 4 is an integral step towards achieving CCNA Certification. Upon completion of this course, students will be able to perform tasks related to the following:

- Network Address Translation (NAT) and Port Address Translation (PAT)
- Dynamic Host Configuration Protocol (DHCP)
- WAN Technologies
- Point-to-Point Protocol (PPP)
- Frame Relay
- Network Troubleshooting
- Access Control Lists (ACLs)

LEARNING OUTCOMES

Students will demonstrate their knowledge of DHCP, DNS, and NAT. Students will demonstrate their ability to build a Frame Relay-based WAN. Students will demonstrate their ability to build a WAN that uses ACLs to control selected network traffic and to secure the network.

COURSE OUTLINE

1. Introduction to WANs

2. PPP
3. Frame Relay
4. Network Security
5. ACLs
6. Teleworker Services
7. IP Addressing Services
8. Network Troubleshooting

METHOD OF INSTRUCTION

This is a "hands-on" and "online" computer technology course. Lecture, hands-on exercises, class participation and online instruction provided by Cisco will be the primary means of instruction. See the **late work policy** and the **class schedule** for details.

TEXTS

The following text is **required**:

Title: CCNA Portable Command Guide, 2nd Edition
Author: Scott Empson
Publisher: Cisco Press
ISBN: 1-58720-193-3
Pub. Date: July 18, 2007

The following text is **optional**:

Title: Accessing the WAN: CCNA Exploration Companion Guide
Author: Bob Vachon and Rick Graziani
Publisher: Cisco Press
ISBN: 1-58713-205-2
Pub. Date: April 28, 2008

The following text is **optional**:

Title: CCNA Exploration Course Booklet: Accessing the WAN, Version 4.01
Author: Cisco Networking Academy
Publisher: Cisco Press
ISBN: 1-58713-255-9
Pub. Date: Sept. 18, 2009

The following text is **optional**:

Title: Accessing the WAN: CCNA Exploration Labs and Study Guide
Author: John Rullan
Publisher: Cisco Press
ISBN: 1-58713-201-X
Pub. Date: April 24, 2008

ATTENDANCE

It is each student's responsibility to attend class regularly. The nature of this course makes successful completion difficult if a student has excessive absences. Students are responsible for exercises, projects, discussions, or announcements missed due to their absence.

Note: Students who do not attend the first class and fail to contact the instructor beforehand may be administratively withdrawn.

STUDENT EVALUATION

The student evaluation components consist of online quizzes for each chapter, labs and activities, a final examination, and a practical examination (also known as a “skills test”).

Students are expected to read and complete the chapters before class and be prepared with questions during the class period. Some material covered in the reading may not be covered during lecture, but students are still responsible for knowing the material! Read and ask questions.

Any homework assignments, projects, reports, exams, or other information given to the instructor become the property of the instructor. The instructor has the choice of retaining or returning anything turned in.

Assessment Item	Points
Online Module Quizzes	100
Labs and Packet Tracer Activities	100
Final Exam	100
Skills Test	100
Challenge Labs	100
Total =	500

Grades will be assigned based on total points using the following scale:

A = 90 – 100% B = 80 – 89% C = 70 – 79% D = 60 – 69% F = < 60%

W's will be issued for students who officially withdraw in accordance with TMCC withdrawal policy. The deadline for withdrawal is **5:00 PM on October 21**.

Students choosing to audit the course have until **5:00 PM on September 2** to change their status from letter grade to auditing. .

LATE WORK

Late work will not be accepted for any reason. If you miss a deadline for any assignment, quiz, or exam, you will receive zero points for the grade. The reason for this policy: In a “real world” work environment, missing a deadline can mean lost revenue, the loss of a contract or client, and/or the loss of a job.

ADA STATEMENT

Qualified, self-identified students with documented disabilities have the right to free accommodations to ensure equal access to educational opportunities at Truckee Meadows Community College. For assistance, contact TMCC's Disability Resource Center at 775-673-7277, TTY 775-673-7888, come by the Red Mountain Building, room 315 B or visit www.tmcc.edu/drc.

TUTORING AND LEARNING CENTER

Study skills advice and tutoring are available. For more information, go to Red Mountain 115, call 673-7285, or visit <http://www.tmcc.edu/tutoring/>.

GENERAL POLICIES

It is assumed that all registered students are mature members of the college community who will adhere to the rules of academic integrity. Plagiarism and cheating will be subject to all disciplinary action as provided in the TMCC code. It is each individual's responsibility to meet scheduled deadlines. Due dates will not be waived for illness or technical difficulties.

Student feedback will be requested each semester to assist the instructor in evaluating the materials, methods of presentation, and pedagogy.

The instructor reserves the right to change this syllabus.

COURSE SCHEDULE

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Class	Date	Course Topic	Due Dates
1	10/23	Course Introduction / Review	
2	10/25	Chapter 1: Introduction to WANs	
3	10/30	Chapter 2: PPP	Chapter 1
4	11/1	Challenge Lab 1	
5	11/6	Chapter 3: Frame Relay	Chapter 2
6	11/8	Challenge Lab 2	
7	11/13	Chapter 4: Network Security	Chapter 3
8	11/15	Chapter 5: ACLs	Chapter 4
9	11/20	Chapter 6: Teleworker Services	Chapter 5
10	11/22	Thanksgiving	
11	11/27	Chapter 7: IP Addressing Services	Chapter 6
12	11/29	Challenge Lab 3	
13	12/4	Chapter 8: Network Troubleshooting	Chapter 7
14	12/6	Review (Challenge Lab?)	Chapter 8
15	12/11	Skills Test	
16	12/13	Final Exam	

*Quizzes and Packet Tracer Activities must be completed **before class** on the date specified.

This schedule is subject to change at the instructor's discretion.