Computer Technologies Department

CSCO 120, section 1002 – Fall 2012 **CCNA Exploration 1 – Network Fundamentals** **MW 5:30 – 9:00 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 1 Exploration v4.0 – Network Fundamentals – Credits: 4

Network Fundamentals is the first of four courses leading to the Cisco Certified Networking Associate certification.* CCNA 1 introduces Cisco Networking Academy program students to the network field. The course focuses on network terminology and protocols, local area networks (LANs), wide area networks (WANs), the OSI and TCP/IP models, cabling, cabling tools, network devices, Ethernet, Internet Protocol (IP) addressing and network standards.

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

COURSE OBJECTIVES

Successful students will demonstrate the ability to perform tasks related to:
- Networking mathematics, terminology, and models
- Networking media: copper, optical, and wireless
- Cabling LANs and WANs
- Cable testing
- Ethernet Operation and 10/100/1000/10G versions of Ethernet
- Ethernet Switching
- IP Addressing and subnetting
- TCP/IP Protocols: IP, TCP and UDP, and application layer protocols

LEARNING OUTCOMES

Students will be able to apply the basic principles of network cabling.

Students will be able to perform basic configurations of network devices.

Students be able to apply their knowledge of IP addressing to design and implement an IP addressing plan to meet the needs of a Small Office/Home Office (SOHO) LAN.

COURSE OUTLINE

1. Living in a Network-Centric World
2. Communicating Over the Network
3. Application Layer Functionality and Protocols
4. OSI Transport Layer
5. OSI Network Layer
6. Addressing the Network – IPv4
7. Data Link Layer
8. OSI Physical Layer
9. Ethernet
10. Planning and Cabling Networks
11. Configuring and Testing Your Network

METHOD OF INSTRUCTION

This class 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. Quizzes and lab work are designed to help the students prepare for their examinations. 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: CCNA Exploration Course Booklet: Network Fundamentals, Version 4.0
Authors: Cisco Networking Academy
Publisher: Cisco Press
ISBN: 1-58713-243-5 **Pub.**
Date: Sept. 10, 2009

The following text is **optional**:
Title: Network Fundamentals, CCNA Exploration Companion Guide, 2nd Edition
Authors: Mark Dye, Rick McDonald, Antoon Rufi
Publisher: Cisco Press
ISBN: 1-58713-208-7
Pub. Date: Oct. 29, 2007

The following text is **optional**:
Title: Network Fundamentals, CCNA Exploration Labs and Study Guide, 2nd Edition
Authors: Antoon Rufi, Priscilla Oppenheimer, Belle Woodward, Gerlinde Brady
Publisher: Cisco Press
ISBN: 1-58713-203-6

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 the assigned 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 Chapter Quizzes (10 @ 20 pts. ea.)	200
Labs and Packet Tracer Activities	100
Final Exam	100
Skills Test	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 19**.

Students choosing to audit the course have until **5:00 PM on August 31** to change their status from letter grade to auditing.

About the Assessment Items

Online Chapter Quizzes are assigned as homework and may be taken online at the Cisco Academy site (http://cisco.netacad.net/). They are multiple-choice and cover the given chapter.

Since each chapter builds on the last, occasional questions from previous chapters may show up on a quiz as well.

Labs are hands-on, classroom activities in which students use real network equipment. **Packet Tracer Activities** simulate a network environment using Cisco's Packet Tracer software.

The **Final Exam** is comprehensive for the entire course. It will be taken in class at the time and date shown in the class schedule. The format is the same as the online chapter quizzes (multiple choice).

The **Skills Test** is a hands-on, practical exam. If you have completed the course labs successfully, you should be able to complete this exam in about an hour. This exam is not designed to trick you or torture you, but you will not pass it if you take it lightly and don't prepare.

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 http://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

Class	Date	Course Topic	Due Dates*
1	8/27	Course Introduction / Chapter 1: Living in a Network-Centric World	
2	8/29	Chapter 2: Communicating Over the Network	
3	9/3	Labor Day	
4	9/5	Chapter 3: Application Layer Functionality and Protocols	Chapter 2
5	9/10	Chapter 4: OSI Transport Layer	Chapter 3
6	9/12	Chapter 5: OSI Network Layer	Chapter 4
7	9/17	Chapter 6: Addressing the Network – IPv4	Chapter 5
8	9/19	Chapter 6 (cont'd)	
9	10/24	Chapter 6 (cont'd)	
10	10/26	Chapter 7: Data Link Layer	Chapter 6
11	10/1	Chapter 8: OSI Physical Layer	Chapter 7
12	10/3	Chapter 9: Ethernet	Chapter 8
13	10/8	Chapter 10: Planning and Cabling Networks	Chapter 9
14	10/10	Chapter 11: Configuring and Testing Your Network	Chapter 10
15	10/15	Skills Test	Chapter 11
16	10/17	Final Exam	

*Quizzes, labs, and Packet Tracer activities must be completed **before class** on the date specified.

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

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