C S 50A Network Basics Course Syllabus

My name is Mike Murphy, I am the instructor for this course.

This class provides you with an introduction to the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

Student Learning Outcomes for this class:

1. OSI Model
You will demonstrate understanding of the role of the OSI Model in Networking

2. Network Communications
You will demonstrate an understanding of communications between two hosts on an IP network connected by an arbitrary collection of routers and switches.

This class utilizes three Web Sites

1. This Canvas site https://foothillcollege.instructure.com (**your username and password are your MyPortal credentials**)

The Canvas site is where you will find the weekly assignments, this site is where is assignments are posted but the assignments are actually performed on one of the other sites.

2. The Cisco Networking Academy site https://cisco.netacad.com (You were sent an email telling you how to confirm your Cisco Networking Academy account) (Links to an external site.)Links to an external site.

Each week you must go to the Cisco Networking Academy site, read the assigned Module, take the quiz and then take the weekly exam. The quiz is scored by it is not part of your grade, its' purpose is to help you evaluate your understanding of the Module that you read. When you are ready, you will take the weekly exam, each exam only count 1% of your class grade.

I recommend that you first do the reading and take the quiz. Then do the Labs and finally take the Module Exam.

3. The NETLAB site is https://openlab.bayict.cabrillo.edu (Your NETLAB username is your

You will perform the assigned labs on the NETLAB site, the lab documents are downloaded from this Canvas site, the labs are provided to you as Word Documents. You will download the lab documents each week and use them when you perform the Labs using NETLAB. As you perform the Labs you should answer the questions presented in the Lab document.

NETLAB is a Web Based interface to the Cisco Routers and Switches that you are learning to configure. The set of Routers, Switches, and PCs that you will be accessing is called a Pod. You will reserve a Pod for your exclusive use.

When you complete the Lab and the Lab write-up you will submit it for grading on our Canvas site.

We are very fortunate to have two additional instructors who will provide you with personalized help with the Labs and any other questions about the course material. Jeff Brody and Kyle Kinkaid are available in Room 4309 and **online via ConferZoom** on the following schedule.

- Monday 5:30 to 9:30pm with Jeff
- Wednesday 5:30 to 9:30pm with Kyle
- Saturday 1 to 5pm with Kyle
- Sunday 1 to 5pm with Jeff

The **online support can be accessed** using the **ConferZoom** with the following link: https://cccconfer.zoom.us/j/200573477Links to an external site. You will able to talk with the Lab instructor over the Web during lab hours.

How to ask written questions and/or contact one of the instructors: Please use Canvas for all communications, use Discussions to ask questions regarding any of the Course Material, discussions have been setup f**or each chapter**.

- Questions about the Reading
- Questions about the Labs
- Questions about the Quiz
- Questions about the Exams

If you need to ask one of us a private question please use the Inbox on the far right of this page.

All of the assignments for the class are listed in the Modules section, the Syllabus includes a summary of the dates that all assignments are due.

Methods of Evaluation (All work must be completed by the scheduled due dates, this distribution may change)

Chapter Exams   11%

Labs   50%

Final Exam   39%

Grading

Grade		Grade	
A	90 to 100%	D	60 to 69.9%
B	80 to 89.9%	F	< 60%
C	70 to 79.9%		

Recommended Supplemental Textbooks These books are not required but can be very helpful to help you understand the material, they are design to assist you when you are studying for the Cisco CCENT and CCNA Exams.

Cisco CCENT/CCNA ICND1 100-105 Official Cert Guide covers C S 50A & B or (Links to an external site.)Links to an external site.

CCNA Routing and Switching 200-125 Official Cert Guide Library covers C S 50A, B, C, D (Links to an external site.)Links to an external site.

Class Web Sites

Canvas https://foothillcollege.instructure.com

Cisco Network Academy (NetAcad) https://cisco.netacad.com (Links to an external site.)Links to an external site.

NETLAB https://openlab.bayict.cabrillo.edu (Links to an external site.)Links to an external site.

Foothill College Academic Integrity Policy and Statement (Links to an external site.)Links to an external site.

Foothill College Disability Resource Center

Grading

Grade	Range
A	85.0 to 100%
B	75 to <85%
C	65 to <75%
D	60 to <65%
F	< 60%

Course Summary:

Date	Details	
Tue Jan 8, 2019	Read Chapter 1 on NetAcad (I will not lecture on this chapter but I will answer questions)	due by 5:59pm
	Quiz for Chapter 1 on Cisco NetAcad	due by 11:59pm
Fri Jan 11, 2019	Read Chapter 2 on NetAcad due by 11:59pm	
Sun Jan 13, 2019	Quiz for Chapter 2 on Cisco NetAcad	due by 6pm
	Exam for Chapter 1 on Netacad	due by 11:59pm
	Exam for Chapter 2 on NetAcad	due by 11:59pm
	Getting to Know You, Please Introduce Yourself to the Class	due by 11:59pm

Date	Details
	Lab 2.1.4.7 - Establishing a Console Session with Tera Term due by 11:59pm
Tue Jan 15, 2019	Quiz for Chapter 3 on Cisco NetAcad due by 6pm
	Read Chapter 3 on Cisco NetAcad due by 6pm
Sun Jan 20, 2019	3.2.4.6 Packet Tracer - Investigating the TCP-IP and OSI Models in Action due by 11:59pm
	3.4.1.2 NetLab - Using Wireshark to View Network Traffic due by 11:59pm
	Exam for Chapter 3 on Netacad due by 11:59pm
	1.2.4.5 Packet Tracer - Network Representation due by 11:59pm
	2.1.4.6 Packet Tracer - Navigating the IOS due by 11:59pm
	2.3.3.3 NetLab - Building a Simple Network due by 11:59pm
	2.3.3.4 NetLab - Configuring a Switch Management Address due by 11:59pm
Tue Jan 22, 2019	Read Chapter 4 on NetAcad due by 5:59pm
Sun Jan 27, 2019	Quiz for Chapter 4 on Cisco NetAcad due by 6pm
	4.1.2.4 NetLab - Identifying Network Devices and Cabling due by 11:59pm
	4.2.2.7 NetLab - Building an Ethernet Crossover Cable due by 11:59pm
	Exam for Chapter 4 in Netacad due by 11:59pm
Tue Jan 29, 2019	Read Chapter 5 on Netacad due by 5:59pm
Sun Feb 3, 2019	5.1.1.7 NetLab - Using Wireshark to Examine Ethernet Frames due by 6pm
	5.1.2.8 NetLab - Viewing Network Device MAC Addresses due by 6pm

Date	Details	
	[5.2.1.7 NetLab - Viewing the Switch MAC Address Table](#)	due by 6pm
	[5.3.2.8 Packet Tracer - Examine the ARP Table](#)	due by 6pm
	[Exam for Chapter 5 in Netacad](#)	due by 6pm
	[Quiz for Chapter 5 on Cisco NetAcad](#)	due by 6pm
Tue Feb 5, 2019	[Read Chapter 6 on NetAcad](#) due by 5:59pm	
Sun Feb 10, 2019	[Quiz for Chapter 7 on NetAcad](#)	due by 10am
	[6.3.2.7 NetLab - Exploring Router Physical Characteristics](#)	due by 6pm
	[6.4.3.3 Packet Tracer - Connect a Router to a LAN](#)	due by 6pm
	[6.4.3.4 Packet Tracer - Troubleshooting Default Gateway Issues](#)	due by 6pm
	[6.5.1.2 NetLab - Building a Switch and Router Network](#)	due by 6pm
	[Exam for Chapter 6 in Netacad](#)	due by 6pm
	[Quiz for Chapter 6 on Cisco NetAcad](#)	due by 6pm
Tue Feb 12, 2019	[Read Chapter 7 on NetAcad - We will discuss IPv4 tonight and IPv6 next week.](#)	due by 10am
	[7.1.2.9 NetLab - Converting IPv4 Addresses to Binary](#)	due by 11:59pm
	[7.1.4.9 NetLab - Identifying IPv4 Addresses](#)	due by 11:59pm
Tue Feb 19, 2019	[Read Chapter 8 on NetAcad](#) due by 5:59pm	
	[Quiz for Chapter 8 on NetAcad](#) due by 6pm	
	[Exam for Chapter 7 in Netacad](#) due by 11:59pm	
Wed Feb 20, 2019	[7.2.5.3 NetLab - Identifying IPv6 Addresses](#)	due by 11:59pm

Date	Details	
	[7.2.5.4 NetLab - Configuring IPv6 Addresses](#)	due by 11:59pm
	[7.3.2.5 Packet Tracer - Verifying IPv4 and IPv6 Addressing](#)	due by 11:59pm
	[7.3.2.7 NetLab - Testing Network Connectivity with Ping and Traceroute](#)	due by 11:59pm
	[7.3.2.9 Packet Tracer - Troubleshooting IPv4 and IPv6 Addressing](#)	due by 11:59pm
Mon Feb 25, 2019	[8.2.1.5 NetLab - Designing and Implementing a VLSM](#)	due by 11:59pm
	[8.3.1.4 Packet Tracer - Implementing a Subnetted IPv6 Addressing Scheme](#)	due by 11:59pm
	[Exam for Chapter 8 in Netacad](#)	due by 11:59pm
Tue Feb 26, 2019	[Read Chapter 9 on NetAcad](#)	due by 5:59pm
	[Quiz for Chapter 9 (take the quiz on Cisco NetAcad)](#) due by 6pm	
Sun Mar 3, 2019	[8.1.4.6 NetLab - Calculating IPv4 Subnets](#)	due by 11:59pm
	[8.1.4.7 Packet Tracer - Subnetting Scenario 1](#)	due by 11:59pm
	[8.1.4.8 NetLab - Designing and Implementing a Subnetted IPv4 Addressing Scheme](#)	due by 11:59pm
Mon Mar 4, 2019	[9.2.4.3 NetLab - Using Wireshark to Examine TCP and UDP Captures](#)	due by 11:59pm
	[9.3.1.2 Packet Tracer Simulation - Exploration of TCP and UDP Communication](#)	due by 11:59pm
	[Exam for Chapter 9 on NetAcad](#)	due by 11:59pm
Tue Mar 5, 2019	[Read Chapter 10 on NetAcad](#)	due by 5:59pm

Date	Details	
	Quiz for Chapter 10 (take the quiz on Cisco NetAcad) due by 6pm	
Mon Mar 11, 2019	10.2.2.8 NetLab - Observing DNS Resolution due by 11:59pm	
	10.2.3.4 NetLab - Exploring FTP due by 11:59pm	
	Exam for Chapter 10 on NetAcad due by 11:59pm	
Tue Mar 12, 2019	Read Chapter 11 on NetAcad due by 5:59pm	
	Quiz for Chapter 11 on Cisco NetAcad due by 6pm	
Mon Mar 18, 2019		
	11.2.4.6 NetLab - Accessing Network Devices with SSH	due by 11:59pm
	11.2.4.7 NetLab - Examining Telnet and SSH in Wireshark	due by 11:59pm
	11.2.4.8 NetLab - Securing Network Devices	due by 11:59pm
	11.2.5.8 NetLab - Managing Router Configuration Files with Terminal Emulation Software (Obsolete Lab) Copy	due by 11:59pm
	11.2.5.9 NetLab - Managing Device Configuration Files Using TFTP, Flash, and USB (Obsolete Lab) Copy	due by 11:59pm
	11.3.2.3 Packet Tracer - Test Connectivity with Traceroute	due by 11:59pm
	11.3.3.3 Packet Tracer - Using Show Commands	due by 11:59pm
	Exam for Chapter 11 on Netacad	due by 11:59pm
Thu Mar 21, 2019		
	11.4.3.5 Netlab - Troubleshooting Connectivity Issues	due by 11:59pm
	Course Feedback and Final Exam are on NetAcad: You must take the Course Feedback Assessment and then the Final Exam	due by 11:59pm
	Lab Final	due by 11:59pm