CCRI Networking Technology I CNVT 1810 Fall 2017

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Office Hours Room 2126
Class Sections 002 Tuesday 10:30AM-2:20PM, starts 9/5 ends 12/19

Instructional Material and Web Sites

1	CCRI Lesson Web Site	www.netlab.ccri.edu (Routing & Switching: Introduction to Networks 6.0)
2	Cisco Academy Assessment Web Site	http://netacad.com/

Grading Policies

Skills:

Journal-Entries	10%
Labs and Class Participation	20%
Practical Final	20%

Academic:

Quizzes	20%
Final	30%

Other Policies

1. The student expected to complete the On-Line lessons outside of class time.
2. There will be no cell phone use allowed during exams.
3. Computers are provided for class assignments and research only.
4. Late assignments will be penalized 20 points. (Research paper will not be accepted late!)
5. Assignments late more than one class period will not be accepted.
6. All assignments must be completed using a word processor.
7. Students are responsible to see the instructor about any work missed due to absence.
8. Students are expected to participate as a member of teams
9. The instructor reserves the right to raise or lower final grade due to attendance, class participation, attitude, and other subjective values.
10. Students must pass both the Skills based portion in addition to the Academic portion of the curriculum to pass the course.
11. Student's final grade can only raise one letter grade above the on-line final exam score based on other class assignments.
12. Department policy is that if you miss the equivalent of two (2) weeks of classes your final grade will drop by one (1) letter grade.

Introduction to Networks Objectives

This course introduces 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. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

Students who complete Introduction to Networks will be able to perform the following functions:

- Understand and describe the devices and services used to support communications in data networks and the Internet
- Understand and describe the role of protocol layers in data networks
- Understand and describe the importance of addressing and naming schemes at various layers of data networks in IPv4 and IPv6 environments
- Design, calculate, and apply subnet masks and addresses to fulfill given requirements in IPv4 and IPv6 networks
- Explain fundamental Ethernet concepts such as media, services, and operations
- Build a simple Ethernet network using routers and switches
- Use Cisco command-line interface (CLI) commands to perform basic router and switch configurations
- Utilize common network utilities to verify small network operations and analyze data traffic

Networking Technology I Syllabus Fall 2017

Class	Lesson	Exam	Subjects	Labs
Sept 5	1		Explore the Network	1.2.4.5 Network Representation (PKA) Class Binary Numbers Class
Sept 12	3	1	Network Protocols and Communication	Hexadecimal Numbers Class
Sept 19	7A	3	IP Addressing 7.1.1.1 thru 7.1.4.7	Subnetting IPv4 Class 7.1.4.9 Identifying IPv4 Addresses Take Home (Due Next Class)
Sept 26	7B		IP Addressing 7.2.1.1 thru 7.3.2.4	Subnetting IPv4 Class 7.3.2.5 Verifying IPv4 and IPv6 Addressing (PKA) Upload
Oct 3	8A	7	Subnetting IP Networks 8.1.1.1 thru 8.2.1.5	Network Router IPv4 Class 8.2.1.4 Implementing a Subnetted IPv6 Addressing Scheme (PKA) Upload
Oct 17	8B		Subnetting IP Networks 8.3.1.1 thru 8.3.1.3	Network Router IPv4 Class 8.3.1.4 Designing and Implementing a VLSM Addressing Scheme (PKA) Upload
Oct 24	2	8	Configure a Network Operating System	Network Router IPv4 Class
Oct 31	4	2	Network Access	Network Router IPv6 Class 4.2.4.4 Connecting a Wired and Wireless LAN Upload
Nov 7	5	4	Ethernet	5.1.1.7 Using Wireshark to Examine Ethernet Frames Class
Nov 14	6	5	Network Layer	6.4.1.3 Configure Initial Router Settings (PKA) Class 6.4.3.3 Connect a Router to a LAN (PKA) Class
Nov 21	9	6	Transport Layer	7.1.4.9 Identifying IPv4 Addresses Class 7.2.5.3 Identify Types of IPv6 Addresses Class
Nov 28	10	9	Application Layer	10.2.2.7 DHCP and DNS Servers Recommended Switching Lab 1 Class
Dec 5	11	10	Build a Small Network	Switching Lab 2 & 3 Class 11.2.5.7 Backing Up Configuration Files (PKA) Upload
Dec 12		11	Review	Open Lab
Dec 19		F	Final Exam	Practical Exam

Specified Labs are listed as to be done in **CLASS**, are **RECOMMENDED** to be done by the student or **OPTIONAL** for the student to complete. Labs marked **UPLOAD** must be completed outside of class and submitted via the NetAcad website.