COURSE SYLLABUS
NET232: Routing and Switching Essentials (Formerly NET430)

Course Description
This course presents fundamentals in router configuration and internetworking structure and theory, the OIS model, IP addressing, LAN and WAN topologies and architecture, Routed and Routing WAN topologies, router modes, router components, routing protocols, router setup, router configuration, Cisco IOS command and configuration and TCP/IP. Students will learn through theory and a hands-on application. This is the second of four classes that lead students towards obtaining the Cisco CCNA certification.

General Course Information

Number of Units/Weeks	8/10
#Hours Lecture/#Hours Laboratory/#Hours Homework	80/40/160
Prerequisite(s)	NET225
Co-requisites (s)	None
Course Developer(s)	Scott Green, B.A.
Date Approved / Last Review	May 2010 / December 2013

Learning Outcomes
- Demonstrate through discussion an in-depth knowledge of the seven layers of the OSI model
- Describe in both verbal and written contexts
- Describe both verbally and in writing, how data travels up and down the OSI model and the hardware and software associated with each layer
- Demonstrate an understanding of common LAN topologies and protocols verbally and through configuration of networking equipment
- Configure TCP/IP, MAC addressing, and subnetting on workstation, switches and routers
- Discuss routed, routing and WAN protocols
- During hands-on labs, show an understanding of router user commands, components and startup configuration; a knowledge of Cisco IOS commands and configuration; and a knowledge of routing protocols and troubleshooting techniques

Instructional Methods Employed in this Course
- Lecture and reading assignments
- Hands-on exercises and labs

- Instructor/student demonstrations
- Small group/whole class discussions
- Collaborative work in groups/teams
- Practical application of theory and skills in authentic networking projects
- Build on prior knowledge and experience of students to enhance richness of class activities

Information Resources for this Course

Textbook

Empson, S. (2013). CCNA Portable Command Guide Third Edition. Indianapolis, IN: Cisco Press.

(2013) Routing and Switching Essentials: Companion Guide. Indianapolis, IN: Cisco Press.
(Full featured textbook for the course)

(2013) Routing and Switching Essentials: Labs Manual;. Indianapolis, IN: Cisco Press.
(Complete collection of all the course lab exercises)

(2013) Routing and Switching Essentials: Course Booklet. Indianapolis, IN: Cisco Press.
(Offline reading resource: contains only the narrative from the online course, no pictures or diagrams)

Web Site Readings

Subnetting

Classless Inter-Domain Routing
http://en.wikipedia.org/wiki/Classless_Inter-Domain_Routing
(Retrieved May 13, 2010)

CIDR Notation
http://en.wikipedia.org/wiki/CIDR_notation
(Retrieved May 13, 2010)

IP Variable Length Subnet Masking (VLSM)
http://www.tcpipguide.com/free/t_IPVariableLengthSubnetMaskingVLSM-3.htm
(Retrieved May 13, 2010)

IP Addressing and Subnetting for New Users
http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a00800a67f5.shtml
(Retrieved May 13, 2010)

Subnetting Made Easy
http://www.faqshop.com/misc/default.htm?http://faqshop.com/misc/miscarts/sn%20made%20easy.htm
(Retrieved May 10, 2010)

Subnetting Made Easy and Other Cisco Tidbits
http://subnettingmadeeasy.blogspot.com/
(Retrieved May 10, 2010)

TechRepublic: IP Subnetting Made Easy
http://articles.techrepublic.com.com/5100-10878_11-6089187.html
(Retrieved May 10, 2010)

Unmasking the Subnet Mask for the CCNA Exam
http://www.dummies.com/how-to/content/unmasking-the-subnet-mask-for-the-ccna-exam.html
(Retrieved May 10, 2010)

YouTube: Superstar Insider IP Subnetting Made Easy
http://www.youtube.com/watch?v=AKl-fpnnqhQ
(Retrieved May 10, 2010)

OSI Model

The 7 Layers of the OSI Model
http://www.webopedia.com/quick_ref/osi_layers.asp
(Retrieved May 10, 2010)

About.com: OSI Model Reference Guide
http://compnetworking.about.com/cs/designosimodel/a/osimodel.htm
(Retrieved May 10, 2010)

Cisco: Internetworking Basics
http://www.cisco.com/en/US/docs/internetworking/technology/handbook/Intro-to-Internet.html
(Retrieved May 10, 2010)

OSI Model
http://en.wikipedia.org/wiki/OSI_model
(Retrieved May 10, 2010)

OSI Model

http://www.topbits.com/osi-model.html
(Retrieved May 10, 2010)

OSI Model Images
http://www.google.com/images?q=osi+model&rls=com.microsoft:en-us:IE-SearchBox&oe=UTF-8&rlz=1I7GGLG_en&um=1&ie=UTF-8&source=univ&ei=IYfoS8CCC4ycsgPEs9iBCA&sa=X&oi=image_result_group&ct=title&resnum=4&ved=0CD0QsAQwAw
(Retrieved May 10, 2010)

Network Topology

About.com: Network Topologies
http://compnetworking.about.com/od/networkdesign/a/topologies.htm
(Retrieved May 10, 2010)

Network Topology
http://en.wikipedia.org/wiki/Network_topology
(Retrieved May 10, 2010)

Network Topology Images
http://www.google.com/images?q=network+topology&rls=com.microsoft:en-us:IE-SearchBox&oe=UTF-8&rlz=1I7GGLG_en&um=1&ie=UTF-8&source=univ&ei=yojoS66eJpGisgPXg5DVBw&sa=X&oi=image_result_group&ct=title&resnum=4&ved=0CD0QsAQwAw
(Retrieved May 10, 2010)

Networking Tutorials: Network Topologies
http://www.networktutorials.info/topology.html
(Retrieved May 10, 2010)

Routing Protocols

Distant Vector vs. Link State Routing
http://www.inetdaemon.com/tutorials/internet/ip/routing/dv_vs_ls.shtml
(Retrieved May 13, 2010)

Distant-Vector Routing Protocol
http://en.wikipedia.org/wiki/Distance-vector_routing_protocol
(Retrieved May 13, 2010)

Distance Vector Routing Protocol
http://www.topbits.com/distance-vector-routing-protocol.html
(Retrieved May 13, 2010)

Enhanced Interior gateway Routing Protocol
http://en.wikipedia.org/wiki/Enhanced_Interior_Gateway_Routing_Protocol
(Retrieved May 13, 2010)

Enhanced Interior Gateway Routing Protocol (EIGRP) Introduction
http://www.cisco.com/en/US/products/ps6630/products_ios_protocol_option_home.html
Retrieved May 13, 2010)

Link-state Routing Protocol
http://en.wikipedia.org/wiki/Link-state_routing_protocol
(Retrieved May 13, 2010)

Networking 101: Understanding RIP Routing
http://www.enterprisenetworkingplanet.com/netsp/article.php/3609151/Networking-101-Understanding-RIP-Routing.htm
(Retrieved May 13, 2010)

Open Shortest Path First
http://en.wikipedia.org/wiki/Open_Shortest_Path_First
(Retrieved May 13, 2010)

OSPF

http://www.rhyshaden.com/ospf.htm
(Retrieved May 13, 2010)

Routing Information Protocol
http://en.wikipedia.org/wiki/Routing_Information_Protocol
(Retrieved May 13, 2010)

Routing Information Protocol (RIP)
http://www.cisco.com/en/US/docs/internetworking/technology/handbook/RIP.html
(Retrieved May 13, 2010)

What You Need to Know About EIGRP
http://www.setup32.com/network-administration/networking/know-eigrp.php
(Retrieved May 13, 2010)

IP Theory

Network History
http://www.nethistory.info/History%20of%20the%20Internet/origins.html
(Retrieved May 10, 2010)

Trainsignal: Free TCP/IP and Networking Fundamentals Training Video
http://www.trainsignaltraining.com/free-video-training/free-tcpip-networking-fundamentals-training-videos/

(Retrieved May 10, 2010)

Table/Topics & Assignments

Types of Assignments:

Lecture -

Considered Lecture Hours

Classroom Discussion -

Considered Lecture Hours

In Class Critique -

Considered Lecture Hours

Delivering Oral Presentations -

Considered Lecture Hours

In Class (IC) Exercise -

Considered Lecture Hours

Reading -

Considered Homework (HW), work done outside of class

WebClass lesson (non-online courses) -

Considered HW, work done outside of class

Lab Work -

Considered Lab Hours

Quiz, Midterm or Final -

Considered Lecture Hours

Week 1						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 1A	Course Introduction – Welcome to Routing and Switching Essentials	.5	--	--	--	
LEC 1B	Subnetting Review	1.5	--	3	--	Week1
LEC 1C	Introduction to Switched Networks	4	--	--	--	
LEC 1D	1.0.1.2 Class Activity – Sent and Received Instructions	1	--	--	--	
HW 1A	1.1.16 Activity – Identify Switched Network Terminology	--	--	.5	--	Week1
HW 1B	1.1.2.3 Activity – Identify Switch Hardware	--	--	.5	--	Week1
HW 1C	1.2.1.6 Activity –	--	--	1	--	Week1

	Frame Forwarding Methods					
HW 1D	1.2.1.7 Activity – Switch IT	--	--	.5	--	Week1
HW 1E	1.2.2.4 Activity – Circle the Domain	--	--	.5	--	Week 1
HW 1F	Chapter 1 Read (40 Pages) Evaluated by HW 1G & Exam 1A	--	--	4	--	Week1
HW 1G	Chapter 1 Quiz (14 Questions)	--	--	1	--	Week1
EXAM 1A	Chapter 1 Exam	1	--	2	4	
Total Week 1		8	0	13	4	

Week 2

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 2A	Basic Switching Concepts and Configuration	3	--	--	--	
LEC 2B	VLANS	3	--	--	--	
HW 2A	2.1.1.6 – Basic Switch Configuration	--	--	1	--	Week 2
HW 2B	PT 2.2.1.4 – Configuring SSH	--	--	.5	--	Week 2
HW 2C	2.2.2.4 Activity – Identify Common Security Attacks	--	--	.5	--	Week 2
HW 2D	PT 2.2.4.9 – Configuring Switch Port Security	--	--	.5	--	Week 2
HW 2E	PT 2.2.4.10 – Troubleshooting Switch Port Security	--	--	.5	--	Week 2
HW 2F	Configuring Switch Security Features	--	--	1	--	Week 2
HW 2G	PT 2.3.1.2 – Skills Integration Challenge	--	--	1	--	
HW 2H	Chapter 2 Reading (40 Pages) Evaluated by HW 2I & Exam 2A	--	--	4	--	Week 2
HW 2I	Chapter 2 Quiz (13 Questions)	--	--	1	--	Week 2
HW 2J	PT 3.1.1.5 – Who Hears the Broadcast?	--	--	.5	--	Week 2
HW 2K	3.1.2.6 Activity – Predict Switch Behavior	--	--	.5	--	Week 2
HW 2L	PT 3.1.2.7 – Investigating a VLAN	--	--	.5	--	Week 2

	Implementation					
HW 2M	PT 3.2.1.7 – Configuring VLANS	--	--	.5	--	Week 2
HW 2N	PT 3.2.2.4 – Configuring Trunks	--	--	.5	--	Week 2
HW 2O	PT 3.2.4.7 – Troubleshooting VLAN Implementations	--	--	1	--	Week 2
HW 2P	PT 3.3.2.2 – Implementing VLAN Security	--	--	.5	--	Week 2
HW 2Q	PT 3.4.1.2 – Skills Integration Challenge	--	--	1	--	Week 2
HW 2R	Chapter 3 Reading (40 Pages) Evaluated by HW 2S & Exam 2B	--	--	4	--	Week 2
EHWLP 2S	Chapter 3 Quiz (13 Questions)	--	--	1	--	Week 2
EXAM 2A	Chapter 2 Exam	1	--	3	5	Week 2
EXAM 2B	Chapter 3 Exam	1	--	3	5	Week 3
Total Week 2		8	0	26	10	

Week 3

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 3A	Routing Concepts	4	--	--	--	
LEC 3B	Inter-VLAN Routing	3	--	--	--	
HW 3A	4.1.1.7 Activity – Identify Router Components	--	--	.5	--	Week 3
HW 3B	4.1.1.9 – Mapping the Internet	--	--	1	--	Week 3
HW 3C	4.1.2.8 Activity – Document and Address Scheme	--	--	.5	--	Week 3
HW 3D	PT 4.1.2.9 – Documenting the Network	--	--	.5	--	Week 3
HW 3E	PT 4.1.3.5 – Configuring IPv4 and IPv6 Interfaces	--	--	1	--	Week 3
HW 3F	PT 4.1.4.5 – Configuring and Verifying a Small Network	--	--	.5	--	Week 3
HW 3G	4.1.4.6 Configuring Basic Router Setting	--	--	1	--	Week 3

	with IOS CLI					
HW 3H	4.1.4.7 Configuring Basic Router Setting with CCP	--	--	1	--	Week 3
HW 3I	4.2.1.6 Activity – matching Layer 2 and Layer 3 Addressing	--	--	.5	--	Week 3
HW 3J	4.2.5.5 Activity – Order the Steps in the Packet Forwarding Process	--	--	.5	--	Week 3
HW 3K	PT 4.3.2.5 – Investigating Directly Connected Routes	--	--	.5	--	Week 3
HW 3L	Chapter 4 Reading (50 Pages) Evaluated by ELP 3M & Exam 3A	--	--	5	--	Week 3
HW 3M	Chapter 4 Quiz (13 Questions)	--	--	1	--	Week 3
HW 3N	5.1.1.5 Activity – Identify the Types of Inter-VLAN Routing	--	--	.5	--	Week 3
HW 3O	5.1.2.4 – Configuring Per-Interface Inter-VLAN Routing	--	--	1	--	Week 3
HW 3 P	PT 5.1.3.6 – Configuring Router-on-a-Stick Inter-VLAN Routing	--	--	.5	--	Week 3
HW 3Q	5.1.3.7 – Configuring 802.1Q Trunk –Based Inter-VLAN Routing	--	--	.5	--	Week 3
HW 3R	PT 5.2.2.4 – Troubleshooting Inter-VLAN Routing	--	--	1	--	Week 3
HW 3S	5.3.2.3 Activity – Troubleshooting Layer 3 Switching Issues	--	--	1	--	Week 3
HW 3T	PT 5.4.1.2 – Shills Integration Challenge	--	--	1	--	Week 3
HW 3U	Chapter 5 Reading (37 Pages) Evaluated by HW 3V & Exam 4A	--	--	3.7	--	Week 3
HW 3V	Chapter 5 Quiz (13 Questions)	--	--	1	--	Week 3
EXAM 3A	Chapter 4 Exam	1	--	3	5	Week 3
Total Week 3		8	0	26.7	5	

Week 4						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 4A	Static Routing	3	--	--	--	
LEC 4B	Configuring IPv4 Static and Default Routes	1	--	--	--	
LEC 4C	Configuring IPv6 Static and Default Routes	1	--	--	--	
LEC 4D	Designing and Implementing Addressing with VLSM	1	--	--	--	
HW 4A	6.1.1.4 Activity – Identify the Advantages and Disadvantages of Static Routing	--	--	.5	--	Week 4
HW 4B	6.1.2.6 Activity – Identify the Type of Static route	--	--	.5	--	Week 4
HW 4C	PT 6.2.2.4 Configuring IPv4 Static and Default Routes	--	--	1	--	Week 4
HW 4D	PT 6.2.4.4 – Configuring IPv6 Static and Default routes	--	--	1	--	Week 4
HW 4E	PT 6.3.3.6 – Designing and Implementing a VLSM	--	--	1	--	Week 4
HW 4F	6.4.1.4 Activity – Determine the Summary Network Address and Prefix	--	--	.5	--	Week 4
HW 4G	PT 6.4.1.5 Configuring IPv4 Route Summarization	--	--	1	--	Week 4
HW 4H	PT 6.4.2.4 – Configuring IPv6 Route Summarization	--	--	1	--	Week 4
HW 4I	6.4.2.5 – Calculating Summary Routes with IPv4 and IPv6	--	--	.5	--	Week 4
HW 4J	PT 6.4.3.4 – Configuring a Floating Static Route	--	--	.5	--	Week 4
HW 4K	PT 6.5.2.3 - Troubleshooting	--	--	1	--	Week 4

	Static Routes					
HW 4L	PT 6.5.2.4 – Troubleshooting VLSM and Route	--	--	1	--	Week 4
HW 4M	PT 6.6.1.2 – Skills Integration Challenge	--	--	1	--	Week 4
HW 4N	Chapter 6 Reading (55 Pages) Evaluated by HW 4O & Exam 4B	--	--	5.5	--	Week 4
HW 4O	Chapter 6 Quiz (13 Questions)	--	--	1	--	Week 4
EXAM 4A	Chapter 5 Exam	1	--	3	5	Week 4
EXAM 4B	Chapter 6 Exam	1	--	3	5	Week 4
Total Week 4		8	0	23	10	

Week 5

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 5A	Routing Dynamically	6	--	--	--	
LEC 5B	Configuring RIPv2	1	--	--	--	
HW 5A	7.1.1.4 Activity – Identify Components of Routing Protocols	--	--	.5	--	Week 5
HW 5B	7.1.2.5 Activity – Dynamic Routing Scorecard	--	--	.5	--	Week 5
HW 5C	PT 7.1.3.6 – Investigating Convergence	--	--	.5	--	Week 5
HW 5D	7.1.4.9 Activity – Classify Dynamic Routing Protocols	--	--	.5	--	Week 5
HW 5E	7.1.4.10 Activity – Compare Routing Protocols	--	--	.5	--	Week 5
HW 5F	7.1.4.11 Activity – Match the Metric to the Protocol	--	--	.5	--	Week 5
HW 5G	7.2.1.3 Activity – Identify Distance Vector Terminology	--	--	.5	--	Week 5
HW 5H	7.2.2.2 Activity – Compare RIP and EIGRP	--	--	.5	--	Week 5
HW 5I	PT 7.2.2.4 – Comparing RIP and EIGRP Path Selection	--	--	1	--	Week 5

HW 5J	PT 7.3.1.7 – Propagating a Default Route	--	--	1	--	Week 5
HW 5K	PT 7.3.1.8 – Configuring RIPv2	--	--	.5	--	Week 5
HW 5L	PT 7.3.2.3 – Configuring RIPng	--	--	.5	--	Week 5
HW 5M	7.4.2.9 Activity – Building the Link-State Database and SFT Tree	--	--	.5	--	Week 5
HW 5N	7.5.1.4 Activity – Identify Parts of an IPv4 Routing Table Entry	--	--	.5	--	Week 5
HW 5O	Chapter 7 Reading (65 Pages) Evaluated by HW 5P & Exam 5A	--	--	6.5	--	Week 5
HW 5P	Chapter 7 Quiz (13 Questions)	--	--	1	--	Week 5
EXAM 5A	Chapter 7 Exam	1	--	3	5	Week 5
Total Week 5		8	0	18.5	5	

Week 6

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 6A	Single-Area OSPF	5	--	--	--	
LEC 6B	Subnet and Wildcard Mask	1	--	--	--	
LEC 6C	Configuring Basic Single-Area OSPFv2	1	--	--	--	
HW 6A	8.1.1.6 Activity – Identify OSPF Features and Terminology	--	--	.5	--	Week 6
HW 6B	8.1.2.6 Activity – Identify the OSPF Packet Types	--	--	.5	--	Week 6
HW 6C	8.1.3.5 Activity – Identify the OSPF States for Establishing Adjacency	--	--	.5	--	Week 6
HW 6D	8.1.3.6 Activity – Observing OSPF Protocol Communications	--	--	.5	--	Week 6
HW 6E	8.2.2.6 Calculate the Subnet and Wildcard Masks	--	--	.5	--	Week 6

HW 6F	PT 8.2.2.7 – Configuring OSPFv2 in a Single-Area	--	--	1	--	Week 6
HW 6G	8.3.1.5 Activity – Compare OSPFv2 and OSPFv3	--	--	.5	--	Week 6
HW 6H	PT 8.3.3.5 – Configuring Basic OSPFv3	--	--	1	--	Week 6
HW 6I	8.3.3.6 – Configuring Basic Single-Area OSPFv3	--	--	1	--	Week 6
HW 6J	PT 8.4.1.2 – Skills Challenge	--	--	1	--	Week 6
HW 6K	Chapter 8 Reading (60 Pages) Evaluated by HW 6I & Exam 6A	--	--	6	--	Week 6
HW 6I	Chapter 8 Quiz (13 Questions)	--	--	1	--	Week 6
EXAM 6A	Chapter 8 Exam	1	--	3	5	Week 6
Total Week 6		8	0	17	5	

Week 7

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	Access Control Lists	5	--	--	--	
LEC 7B	Configuring and Verifying Standard ACLs	1	--	--	--	
LEC 7C	Configuring and Verifying VTY Restrictions	1	--	--	--	
HW 7A	PT 9.1.1.6 – ACL Operation	--	--	1	--	Week 7
HW 7B	9.1.3.6 Activity – Determine the Correct Wildcard Mask	--	--	.5	--	Week 7
HW 7C	9.1.3.7 Activity – Determine the Permit or Deny	--	--	.5	--	Week 7
HW 7D	9.1.4.2 Activity – ACL Operation	--	--	.5	--	Week 7
HW 7E	9.1.5.4 Activity – Placing Standard and Extended ACLs	--	--	.5	--	Week 7
HW 7F	9.2.1.9 Activity – Configuring Standard ACLs	--	--	.5	--	Week 7
HW 7G	PT 9.2.1.10 –	--	--	1	--	Week 7

	Configuring Standard ACLs					
HW 7H	PT 9.2.1.11 – Configuring Named Standard ACLs	--	--	1	--	Week 7
HW 7I	PT 9.2.3.3 – Configuring an ACL on VTY Lines	--	--	1	--	Week 7
HW 7J	9.3.2.7 Activity – Creating an extended ACL Statement	--	--	.5	--	Week 7
HW 7K	9.3.2.8 Activity – Evaluating Extended ACEs	--	--	.5	--	Week 7
HW 7L	9.3.2.9 Activity – ACL Testlet	--	--	.5	--	Week 7
HW 7M	9.3.2.10-13 Configuring Extended ACLs	--	--	2	--	Week7
HW 7N	9.4.1.5 Activity – Place in Order The Steps of the ACL Decision Making	--	--	.5	--	Week7
HW 7O	PT 9.4.2.6 – Troubleshooting ACLs	--	--	1	--	Week7
HW 7P	PT 9.4.2.8 – Skills Integration Challenge	--	--	1	--	Week7
HW 7Q	Chapter 9 Reading (75 Pages) Evaluated by HW 7R & Exam 7A	--	--	7.5	--	Week7
HW 7R	Chapter 9 Quiz (13 Questions)	--	--	1	--	Week7
EXAM 7A	Chapter 9 Exam	1	--	3	5	Week 7
Total Week 7		8	0	24	5	

Week 8

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	DHCP	3	--	--	--	
LEC 8B	Configuring Basic DHCPv4 on a Router	1	--	--	--	
LEC 8C	Configuring Basic DHCPv4 on a Switch	1	--	--	--	
LEC 8D	Configuring Stateless and Stateful DHCPv6	1	--	--	--	
LEC 9E	Troubleshooting DHCPv6	1	--	--	--	
HW 8A	10.1.1.5 Activity – Identify the Steps in	--	--	.5	--	Week 8

	DHCPv4 Operation					
HW 8B	PT 10.1.3.3 – Configuring DHCPv4 Using Cisco IOS	--	--	1	--	Week 8
HW 8C	10.1.4.4 Troubleshoot DHCPv4	--	--	1	--	Week 8
HW 8D	10.2.1.8 Activity – Identify the Steps in DHCPv6 Operation	--	--	.5	--	Week 8
HW 8E	PT 10.3.1.2 – Skills Integration Challenge	--	--	1	--	Week 8
HW 8F	Chapter 10 Reading (35 Pages) Evaluated by HW 8G Exam & 8A	--	--	3.5	--	Week 8
HW 8G	Chapter 10 Quiz (13 Questions)	--	--	1	--	Week 8
EXAM 8A	Chapter 10 Exam	1	--	3	5	Week 8
Total Week 8		8	0	11.5	5	

Week 9

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	Network Address Translation for IPv4	3	--	--	--	
LEC 9B	Configure Dynamic and Static NAT	1	--	--	--	
HW 9A	11.1.1.6 Activity – Identify the NAT Terminology	--	--	.5	--	Week 9
HW 9B	PT 11.1.2.6 Investigating NAT Operation	--	--	.5	--	Week 9
HW 9C	PT 11.2.1.4 – Configure Static NAT	--	--	1	--	Week 9
HW 9D	PT 11.2.2.5 – Configure Dynamic NAT	--	--	1	--	Week 9
HW 9E	11.2.3.5 Activity – Identify the Address Information at Each Hop	--	--	.5	--	Week 9
HW 9F	PT 11.2.3.6 – Implementing Static and Dynamic NAT	--	--	1	--	Week 9
HW 9G	PT 11.2.4.4 – Configuring Port Forwarding on a Linksys Router	--	--	1	--	Week 9
HW 9H	PT 11.3.1.4 – Verifying and	--	--	1	--	Week 9

	Troubleshooting NAT					
HW 9I	PT 11.4.1.2 – Skills Integration Challenge	--	--	1	--	Week 9
HW 9J	Chapter 11 Reading (32 Pages) Evaluated by HW 9K & Exam 9A	--	--	3.2	--	Week 9
HW 9K	Chapter 11 Quiz (13 Questions)	--	--	1	--	Week 9
EXAM 9A	Chapter 11 Exam	1	--	3	--	Week 9
EXAM 9B	Practice Final Exam	1	--	2	1	Week 9
EXAM 9C	Packet Tracer Final Exam	2	--	4	15	Week 9
Total Week 9		8	0	20.7	16	

Week 10

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 10A	PT	2	--	4	--	
EXAM 10A	Final Exam	2	--	4	15	Week 10
EXAM 10B	Practical Exam	4	--	6	15	Week 10
Total Week 10		8	--	14	30	

Course Hours Summary

Week	Topic	LEC Hours	LAB Hours	HW Hours
1	Course Introduction Introduction to Switched Networks	8	--	13
2	Basic Switching Concepts and Configuration VLANs	8	--	26
3	Intro to Dynamic Routing Protocols	8	--	26.7
4	Distant Vector Routing Protocols	8	--	23
5	RIPv1	8	--	18.5
6	VLSM & CIDR	8	--	17
7	RIPv2	8	--	24
8	The Routing Table: A Closer Look EIGRP	8	--	11.5
9	Managing Router Configurations Practice Final Exam Packet Tracer Final	8	--	20.7
10	Skills Challenge Final Exam Practical Exam	8	--	14
Total		80	--	194.4

Table/Point Breakdown

Week	Assignment		Possible Points	Percent of Grade
1	EXAM 1A	Chapter 1 Test	4	4%
2	EXAM 2A	Chapter 2 Test	5	5%
2	EXAM 2B	Chapter 3 Test	5	5%
3	EXAM 3A	Chapter 4 Test	5	5%
4	EXAM 4A	Chapter 5 Test	5	5%
4	EXAM 4B	Chapter 6 Test	5	5%
5	EXAM 5A	Chapter 7 Test	5	5%
6	EXAM 6A	Chapter 8 Test	5	5%
7	EXAM 7A	Chapter 9 Test	5	5%
8	EXAM 8A	Chapter 10 Test	5	5%
9	EXAM 9A	Chapter 11 Test	5	5%
9	EXAM 9B	Practice Final Exam	1	1%
9	EXAM 9C	Packet Tracer Final	15	15%
10	EXAM 10A	Final Exam	15	15%
10	EXAM 10B	Practical Exam	15	15%
Total			100	100%

Your Grades for this Course

Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity.

Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows:

Coleman University Grade Assignment Policy:

Percent	Letter Grade	Grade Points
94-100	A	4
90-93	A-	3.67
87-89	B+	3.33
84-86	B	3
80-83	B-	2.67
77-79	C+	2.33
74-76	C	2
70-73	C-	1.67
67-69	D+	1.33
64-66	D	1
60-63	D-	0.67
N/A	INC	0
N/A	W	0
60 or above	CR	0
59 or below	NC	0
N/A	I	0
N/A	W	0
N/A	AU	0
N/A	TR	0
N/A	WV	0

Legend	
CR = Credit	NC = No Credit
I = Incomplete	W = Course Withdrawal

AU = Audit	TR = Transfer Credit
WV = Waiver	

Academic Accommodation / Adjustment Policy:

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals.

To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at ada@coleman.edu. The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations.

After the academic accommodations have been determined, the students' instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures.