COURSE SYLLABUS
Net 250: Networking Concepts

Course Description

This course covers the basic concepts of Local Area Networks (LANs) and their technologies. This course will use a technical approach to LANs including an overview of Networking Protocols, Topographies, Media, and Networking Devices using the Open System Interconnection (OSI) Reference Model. This course shows how data flows from the Home, Small Office/Home Office (SOHO), and Enterprise networks.

General Course Information

Number of Units/Weeks	4/10
#Hours Lecture/#Hours Laboratory/#Hours Homework	40/0/80
Prerequisite(s)	None
Co-requisites (s)	None
Course Developer(s)	Scott Green, BA/Brent Luallin MS
Date Approved / Last Review	June 2009 / May 2018

Learning Outcomes

Upon completion of the course, student will be able to:

- In a written examination, the student will discuss and demonstrate the concept of networking, terminology, principles and characteristics.
- In a written examination, the student will discuss and demonstrate the concept of protocols and how they relate to the OSI model.
- In a written examination, students will demonstrate how computers communicate with each other and the methods employed to assure that the communication is reliable.
- In a written exam students will display knowledge in network security concepts
- In a hands on project, students will demonstrate and present to the class a building design network project.

Instructional Methods Employed in this Course

A number of instructional/learning methods are employed in this course, including the following:

- Lecture and reading assignments.
- Hands-on exercises.
- Team environment.
- Practical application of theory and skills in authentic design projects.
- Build on prior knowledge and experience of students to enhance richness of class activities.

Information Resources for this Course

Textbook

Network + Guide to Networks, Cengage Learning
2019, 8th edition ISBN-13: 978-1337569330, ISBN-10: 133756933X

Other Materials

Myers, M. (2009). CompTIA Network+ All-In-One Exam Guide, Fourth Edition. Emeryville, McGraw-Hill Osborne. ISBN 978-007-161487-0

Flash drive of at least 256 MB recommended

Web Site Readings

http://www.webopedia.com/quick_ref/OSI_Layers.asp

http://www.youtube.com/watch?v=DqOvu-wAAM0&feature=fvw

http://www.youtube.com/watch?v=DqOvu-wAAM0&feature=fvw

http://www.youtube.com/watch?v=vAY9uD1tb7U&feature=related

http://www.youtube.com/watch?v=ds7dWnGkN38&feature=related

http://www.ralphb.net/IPSubnet/

http://articles.techrepublic.com.com/5100-10878_11-6089187.html

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	Introduction to Networking	4	--	--	--	
HW 1A	Read Chapter: 1 (41 pages)	--	--	4.1	--	
HW 1B	Chapter Review 1 (20 Questions)	--	--	1.3	20	Beginning of Week 2
HW 2B	Networking Project 1 [3 Pages of Writing (1.5 hour), 2 Citations (1 hour)]	--	--	2.5	80	Beginning of Week 2
Total Week 1		4	--	7.9	100	

Week 2

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 2A	Network Infrastructure and Documentation Addressing on Networks	3	--	--	--	
IC EX 2A	Quiz 1 (Chapters: 2 & 3)	1	--	--	25	
HW 2A	Read Chapters: 2 & 3 (73 Pages)	--	--	7.3	--	
HW 2B	Chapter Review (15 Questions)	--	--	1.0	15	Beginning of Week 3
Total Week 2		4	--	8.3	40	

Week 3

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 3A	Network Protocols and Routing and Network Cabling	4	--	--	--	
HW 3A	Read Chapters: 4 and 5 (39 Pages)	--	--	3.9	--	
HW 3B	Chapter Review 4 and 5 (20 Questions)	--	--	1.3	20	Beginning of Week 4
HW 3C	Networking Project 2 [3 Pages of Writing (1.5 hour), 2 Citations (1 hour)]	--	--	2.5	90	Beginning of Week 4
Total Week 3		4	--	7.7	110	

Week 4						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
EC 4A	Wireless Networking Virtualization and Cloud Computing	3	--	--	--	
IC EX 4A	Quiz 2 (Chapters: 6 and 7)	1	--	--	25	
HW 4A	Read Chapters: 6 and 7 (32 Pages)	--	--	3. 2	--	
HW 4B	Chapter Review 6 & 7 (20 Questions)	--	--	1.3	20	Beginning of Week 5
HW 4C	Subnetting Project (50 Questions)	--	--	3.3	50	Beginning of Week 5
Total Week 4		4	--	7. 8	95	

Week 5						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
Lecture 5A	Review & Discussion	2	0	0	0	
HW 5A	Chapters Review (1-7) (160 Pages)	0	0	8.0	0	
Midterm 5	Mid Term	2	0	0	250	
Total Week 5		4	0	8.0	250	

Week 6						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 6A	Subnets and VLANs	4	--	--	--	
HW 6A	Read Chapter: 8 (68 Pages)	--	--	6.8	--	
HW 6B	Chapter 8 Review (20 Questions)	--	--	1.3	20	Beginning of Week 7
Total Week 6		4	--	8.1	20	

Week 7

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 7A	Network Risk Management	3	--	--	--	
IC EX 7A	Quiz 3 (Chapter 8)	1	--	--	25	
HW 7A	Read Chapter: 9 (59 Pages)	--	-	5.9	-	
HW 7B	Chapter Review 9 (30 Questions)	--	--	2	30	Beginning of Week 8
Total Week 7		4	--	7.9	55	

Week 8

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 8A	Security in Network Design	3	--	--	--	
IC EX 8A	Quiz 4 (Chapter: 9)	1	--	--	25	
HW 8A	Read Chapter: 10 (58 pages)	--	--	5.8	--	
HW 8B	Chapter Review 10 (30 Questions)	--	--	2.0	30	Beginning of Week 9
Total Week 8		4	--	7.8	55	

Week 9

Type	Topic/Description	LEC Hours	LAB Hours	HW Hours	Point Value	Due
LEC 9A	Network Security / Ensuring, Integrity and Availability / Network Management	3	--	--	--	
IC EX 9A	Quiz 5 (Chapter 10)	1	--	--	25	
HW 9A	Read Chapters: 11 & 12 (95 Pages)	--	---	9.5	--	
Total Week 9		4	--	9.5	25	

Week 10						
Type	**Topic/Description**	**LEC Hours**	**LAB Hours**	**HW Hours**	**Point Value**	**Due**
LEC 10A	Review & Discussion	2	--	--	--	
HW 10A	Chapters Review (8 – 12) (160 Pages)	--	--	8.0	--	
EXAM 10A	Final	2	--	--	250	
Total Week 10		4	--	8.0	250	

Course Hours Summary

Week		**LEC Hours**	**LAB Hours**	**HW Hours**
1	Introduction to Networking	4	--	7.9
2	Network Infrastructure and Documentation Addressing on Networks	4	--	8.3
3	Network Protocols and Routing Network Cabling	4	--	7.7
4	Wireless Networking, Virtualization, and Cloud Computing	4	--	7. 8
5	Review & Discussion / Mid Term	4	--	8.0
6	Subnets and VLANs	4	--	8.1
7	Network Risk Management	4	--	7.9
8	Security in Network Design	4	--	7.8
9	Network Performance and Recovery Wide Area Networks	4	--	9.5
10	Review & Discussion / Final	4	--	8.0
Total		40	--	81.0

Table/Point Breakdown

Week	Assignment	Possible Points	Percent of Grade
1	Chapter review questions / Networking Project #1	100	10%
2	Chapter review questions / Quiz #1	40	4%
3	Chapter review questions / Networking Project #2	110	11%
4	Chapter review questions / Quiz #2 / Subnetting Project	95	9.5%
5	Mid Term Exam	250	25%
6	Chapter review questions	20	2%
7	Chapter review questions / Quiz #3	55	5.5%
8	Chapter review questions / Quiz #4	55	5.5%
9	Quiz #5	25	2.5%
10	Final Exam	250	25%
Total		1,000	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	F	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.