BRAC University
Department of Computer Science and Engineering
CSE 490/EEE 453 :: LAN Switching and WAN Technologies
Summer 2016

Instructor:	Sadia Hamid Kazi	
Addresses	Office: UB 50409	Email: skazi@bracu.ac.bd
Course Time & Place:	Mon & Wed (UB30101) 9:30am to 10:50am	Lab Time: Sec 1: Sun 2:00pm –4:50pm UB40101
Consultation Hours:	Tues 10am to 12pm and Thurs-10am to 12pm	and by appointment.

Course Overview

First part of this course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn the knowledge and skills required to successfully to install, operate, and troubleshoot a small- to medium-size enterprise branch network. In the first half the course includes topics on IP routing technologies, IP services which focuses on first hop redundancy protocols (FHRPs), such as HSRP and GLBP. Also covered are syslog, SNMP, and NetFlow and network address translation issues.

The second part consist of the different implementations of Spanning Tree Protocol in a converged network are presented, and common troubleshooting issues in IP, IPv6 and switched networks will be covered. For wide area networking; multiple protocols in depth will be discussed, especially HDLC, PPP, and Frame Relay, along with a discussion on many other technologies including a brief overview on wireless technology.

Course Materials

Required Material:

- CCNA Routing and Switching Study Guide by Todd Lammle, 1st Edition, ISBN-13: 978-1118749616

- Handouts.

Recommended Textbooks:

- CCNA Routing and Switching 200-120 Official Cert Guide Library, by Wendell Odom, 1st Edition, ISBN-13: 978-1-58714-387-8

Grading Policy

Final Grades will be based upon the following:

CSE 490:

Category	Percentage
In Class Assignments	05%
Quiz	15%
Lab	20%
Midterm	20%
Final Exam	40%
Total	100%

EEE 453:

Category	Percentage
In Class Assignments	05%
Quiz	20%
Midterm	20%
Final Exam	55%
Total	100%

Assignments:

You will be expected to complete a number of in class assignments. So you will need to pay attention in class and also be prepared beforehand.

Quizzes:

There will be **Six(6)/Seven(7)** quizzes in total but only the **best Four(4)** (without exception) will be considered in calculating your final grade. Some quizzes will be taken via Moodle.

Lab:

Lab is mandatory for all. Lab classes are aligned with the theory. So missing labs is not an option. There shall be a midterm and final exam for the lab separately.

Suggestions:

- Be in class on time and pay attention.
- Notify the instructor AS SOON AS POSSIBLE if you have to miss any class.
- If you miss class, acquire the information from your fellow students including notes, any handouts and assignments.

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<u>Tentative Course Schedule</u>

Lecture	Date	Topic	CCNA R&S# Todd Lammle	Quizzes
			Chapters	
1	09/05, M	VLSM	ICND2, Chap#16	
2	11/05, W	VLSM	ICND2, Chap#16	
3	16/05, M	EIGRP	ICND2, Chap#19	
4	18/05, W	EIGRP	ICND2, Chap#19	
5	23/05, M	Shab-e-barat Holiday		
6	25/05, W	Advanced EIGRP	ICND2, Chap#19	Quiz#1
7	30/05, M	Multi Area OSPF	ICND2, Chap#20	
8	01/06, W	IP Services	ICND2, Chap#17	
9	06/06, M	IP Services	ICND2, Chap#17	
10	08/06, W	IP Services	ICND2, Chap#17	Quiz#2
11	13/06, M	Enhanced Switching Technologies	ICND2, Chap#15	
12	15/06 W	Enhanced Switching Technologies	ICND2, Chap#15	Quiz#3
MIDTERM WEEK				
13	27/06, M	Wireless	Handout	
14	29/06, W	Wireless	Handout	
EID HOLIDAYS				
15	11/07, M	Wide Area Networking	ICND2, Chap#21	
16	13/07, W	Wide Area Networking	ICND2, Chap#21	Quiz#4
17	18/07, M	Wide Area Networking(Frame Relay)	ICND2, Chap#21	
18	20/07, W	Wide Area Networking (Frame Relay)	ICND2, Chap#21	Quiz#5
19	25/07, M	Wide Area Networking (VPN)	ICND2, Chap#21	
20	27/07, W	Wide Area Networking (IPSec and Others)	ICND2, Chap#21	Quiz#6
21	01/08, M	Troubleshoot IP,IPv6 and VLANs	ICND2, Chap#18	
22	03/08, W	Review		Quiz#7