CPSC 5157U-SUMMER 2018

COURSE SCHEDULE

Tentative Topic Schedule

(For exact due date of Assignments, Labs, Project, please refer to D2L Dropbox)

Week	Date	Topics to be covered	Chapter (PPT Slides)	Assignments	Labs	Project	Support Learning Outcomes
1	06/13(W)	1.Class Introduction	Chapter 1				
	06/14(R)	2. Introduction to organization of the Internet 3. Switching techniques	Chapter 1 (1-41)				LO1
2	06/18(M)	1. Physical pieces of a network 2. Layering design and its principles 3. the roles of the different layers (OSI and Internet models)	Chapter 1 (42-76)	A1			LO2, LO3
	06/19(T)	1. Principles of Network applications 2. The web and HTTP 3. Email and SMTP	Chapter 2 (1-43)				LO4
	06/20(W)	1. DNS 2. Peer-to-Peer applications 3. Video streaming and Content distribution networks	Chapter 2 (44-80)				LO4
	06/21 (R)	1. Socket programming with UDP 2. Socket programming with TCP	Chapter 2 (81-106)			Project Starts	LO5
3	06/25(M)	Socket programming demo with TCP	Chapter 2	A2			LO5
	06/26(T)	1. Introduction to Transport Layer services 2. Multiplexing and De-multiplexing 3. UDP	Chapter 3 (1-37)				LO6
	06/27(W)	1. Principles of reliable data transfer 2. TCP	Chapter 3 (38-72)		Lab 1		LO6
	06/28 (R)	1. Principles of congestion control 2. TCP congestion control	Chapter 3 (73-108)	A3			LO6

4	07/02(M)	1. Introduction to Network Layer 2. Router	Chapter 4 (1-34)				LO7
	07/03(T)	1. IPv4, IPv6, and Addressing. 2. Generalized forwarding and SDN	Chapter 4 (35-75)	A4			LO7
	07/04(W)	**Independence Day (No Class)**					
	07/05 (R)	1. Routing Algorithms: LS, DV 2. OSPF, BGP	Chapter 5 (1-40)				LO7
5	07/09(M)	1. SDN Control Plane 2. ICMP 3. Network Management and SNMP	Chapter 5 (41-86)	A5			LO7
	07/10(T)	1. Introduction to Data Link Layer 2. Error detection and correction 3. Multiple access links and protocols	Chapter 6 (1-28)				LO8
	07/11(W)	1. Switched local area networks 2. Link Virtualization	Chapter 6 (29-70)				LO9
	07/12 (R)	1. Data center networking 2. A day in the life of a Web Page Request (Optional) 3. Midterm Exam Study Guide	Chapter 6 (71-87)	A6	Lab 2		LO10
6	**07/16(M)**	**Midterm Exam**	Cover: Chapter 1 to Chapter 3				
	07/17(T)	1. Wireless links and network characteristics 2. WiFi: 802.11 Wireless LANs	Chapter 7 (1-28)				LO11
	07/18(W)	1. Cellular Internet Access 2. Mobility Management: Principles	Chapter 7 (29-60)				LO11
	07/19 (R)	1.Mobile IP 2. Managing Mobility in Cellular	Chapter 7 (61-75)	A7			LO11

		Networks					
7	07/23(M)	1. Introduction to Network security 2. Principles of Cryptography	Chapter 8 (1-43)			Project Ends	LO12
	07/24(T)	3. Message Integrity and Digital Signatures	Chapter 8 (44-81)				LO12
	07/25(W)	1. End-Point Authentication 2. Securing E-Mail 3. SSL	Chapter 8 (82-116)				LO12
	07/26 (R)	1. IPsec and VPN 2. Securing Wireless LANs 3. Operational Security: Firewalls and Intrusion Detection Systems	Chapter 8 (117-130)	A8			LO12
8	07/30(M)	Final Exam Study Guide					
	07/31(T) Last Class						
	08/01-03 Final Exam						