

Fundamentals of Computer Networking
CS4700/CS5700 Spring 2011

Course Schedule
1 January 2011

No.	Date	Topic	Details	Reading	Homeworks	Projects
1	Jan. 10	Course overview Introduction to networking	<i>schedule, policies, grading</i> <i>layering, architecture, performance</i>	§1.1-1.5		Proj. 0 out
	Jan. 17	<i>No class, Martin Luther King Jr. Day</i>				
2	Jan. 24	Direct link Ethernet (802.3)	<i>framing, signaling, error correction</i>	§2.1-2.6		Proj. 0 due Proj. 1 out
3	Jan. 31	Wireless (802.11) Switching Packet switching (ATM)	<i>hidden terminals, ad-hoc networks</i> <i>switching, bridging</i>	§2.8, 3.1-3.4	Hw. 1 out	
4	Feb. 7	Routing Internet protocol (IP, ICMP) Intra-domain routing (RIP)	<i>distance vector protocols</i>	§4.1-4.2.2	Hw. 1 due	
5	Feb. 14	Inter-domain routing (OSPF, BGP) CIDR	<i>link state protocols</i>	§4.2.3-4.3	Hw. 2 out	Proj. 1 due Proj. 2 out
	Feb. 21	<i>No class, President's Day</i>				
	Feb. 28	<i>No class, Spring Break</i>				
6	Mar. 7	<i>Mid-term exam</i> Transport Reliability (UDP)	<i>packet loss, corruption, misordering</i>	§5.1-5.2.4	Hw. 2 due	
7	Mar. 14	Transport control protocol (TCP) Remote procedure call (RPC)	<i>sliding windows, retransmission</i>	§5.2.5-5.3	Hw. 3 out	
8	Mar. 21	Congestion control (AIMD)	<i>slow start, adaptive algorithms</i>	§6.2-6.4	Hw. 3 due	Proj. 2 due Proj. 3 out
9	Mar. 28	Services Domain name system (DNS)	<i>compression, presentation, naming</i>	§7.1-7.3, 9.1.3		
10	Apr. 4	Quality of service (QoS) Multicast routing (IGMP)	<i>prioritization, video streaming, overlays</i>		Hw. 4 out	
11	Apr. 11	Applications Web (HTTP), Email (SMTP) BitTorrent	<i>protocols, applications</i>	§9.1.1-9.1.2, 9.4	Hw. 4 due	
12	Apr. 18	Security Web (HTTPS), Kerberos, SSH	<i>attackers, denial-of-service, encryption</i>	§8.1-8.5		Proj. 3 due