CS 372 Introduction to Computer Networks
Course Calendar*   Summer 2017

NOTE: Weeks are shown Sunday through Sunday. Assignments are due the 2nd Sunday, unless otherwise noted.
*NOTE: Subject to change based on material pace

New Assignments in BLACK.   Due Assignments in RED

Unit / Week	Topics
#1: 06/25 – 07/02 **Week 1 Summary Exercises Syllabus Quiz Lab #1** **Week 1 Summary Exercises Syllabus Quiz**	• Basic concepts • Networking metrics • Network protocols • Network edge/core • Circuit-switching / Packet-switching **Read** K&R Chapter 1.1 – 1.4
#2: 07/02 – 07/09 **Week 2 Summary Exercises** **Week 2 Summary Exercises Lab #1**	• Physical media • Layering models • Security issues • Application layer **Read** K&R Chapter 1.5 – 1.8, 2.1

#3: 07/09 – 07/16
 	
**Week 3 Summary Exercises
Quiz #1
Lab #2**
 	
**Week 3 Summary Exercises
Quiz #1**
	• Application layer protocols
	  o Hypertext Transfer Protocol (HTTP)
	  o File Transfer Protocol (FTP)
	  o Mail (SMTP, POP3, IMAP)
	  o Domain Name Services (DNS)
	    ▪ Network byte order
	• Transport Layer
	  o Introduction
	  o Multiplexing/Demultiplexing
	
	Read K&R Chapter 2.2 – 2.4, 2.7 (2.6 optional), 3.1 – 3.2

#4: 07/16 – 07/23
 	
**Week 4 Summary Exercises
Program #1**
 	
Week 4 Summary Exercises
	• Socket programming primer
	• Transport Layer
	  o Connectionless transport
	  o Connection-oriented transport
	  o Reliable Data Transfer
	  o Transmission Control Protocol (TCP)
	  o User Datagram Protocol (UDP)
	  o Flow control
	
	Read K&R Chapter 3.3 – 3.5
	
	**Midterm Exam
	(Available Saturday – Monday only)**

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#5: 07/23 – 07/30
 	
Week 5 Summary Exercises
Lab #3
 	
Week 5 Summary Exercises
Lab #2
Program #1
	• Transport Layer
	   o Congestion control
	   o TCP Connections & Fairness
	• Network Layer
	   o Introduction
	   o Internet protocols
	   o Datagram Routing & Forwarding
	   o Internet Protocol (IPv4) Header
	   o Routing vs. Forwarding
	
	Read K&R Chapter 3.6 – 3.8, 4.1 – 4.2

#6: 07/30 – 08/06
 	
Week 6 Summary Exercises
Quiz #2
Program #2
 	
Week 6 Summary Exercises
Quiz #2
Lab #3
	• Network Layer
	   o Classless Inter-Domain Routing (CIDR)
	   o Dynamic Host Configuration Protocol (DHCP)
	   o Routing algorithms
	   o Fragmentation
	   o Internet Control Message Protocol (ICMP)
	
	Read K&R Chapter 4.3, 5.1 – 5.3, 5.6

#7: 08/06 – 08/13
 	
Week 7 Summary Exercises
Lab #4
 	
Week 7 Summary Exercises
Program #2
	• Network Layer
	   o Network Address Translation (NAT, NAPT)
	   o Internet Protocol (IPv6)
	• Link Layer
	   o Network interfaces
	   o Multiple Access protocols
	   o MAC addresses
	   o Address Resolution Protocol (ARP)
	   o Local Area Networks (LAN)
	      ▪ Ethernet
	
	Read K&R Chapter 6.1 – 6.4, 6.7

#8: 08/13 – 08/20
 	
Week 8 Summary Exercises
 	
Week 8 Summary Exercises
Lab #4 due FRIDAY
 	
Final Exam Dates:
	• Link Layer
	   o Ethernet Frame and Multiple Access
	   o Wireless networks
	   o Networking Mobility
	• Network security
	• Cryptography
	
	Read K&R Chapter 7.1 – 7.3, 8.1 – 8.3
	
	 Final Exam
	(Available Friday – Sunday only)