

CS 372 Introduction to Computer Networks

Course Calendar* Summer 2016

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: 06/19 – 06/26 Week 1 Summary Exercises Syllabus Quiz Lab #1 Week 1 Summary Exercises Syllabus Quiz	<ul style="list-style-type: none"> • Basic concepts • Networking metrics • Network protocols • Network edge/core • Circuit-switching / Packet-switching Read K&R Chapter 1.1 – 1.4
#2: 06/26 – 07/03 Week 2 Summary Exercises Week 2 Summary Exercises Lab #1	<ul style="list-style-type: none"> • Physical media • Layering models • Security issues • Application layer Read K&R Chapter 1.5 – 1.8, 2.1
#3: 07/03 – 07/10 Week 3 Summary Exercises Quiz #1 Lab #2 Week 3 Summary Exercises Quiz #1	<ul style="list-style-type: none"> • Application layer protocols <ul style="list-style-type: none"> ◦ Hypertext Transfer Protocol (HTTP) ◦ File Transfer Protocol (FTP) ◦ Mail (SMTP, POP3, IMAP) ◦ Domain Name Services (DNS) <ul style="list-style-type: none"> ▪ Network byte order • Transport Layer <ul style="list-style-type: none"> ◦ Introduction ◦ Multiplexing/Demultiplexing Read K&R Chapter 2.2 – 2.5, 2.7, 3.1 – 3.2
#4: 07/10 – 07/17 Week 4 Summary Exercises Program #1 Week 4 Summary Exercises Midterm Exam Dates: 07/16 – 07/18	<ul style="list-style-type: none"> • Socket programming primer • Transport Layer <ul style="list-style-type: none"> ◦ Connectionless transport ◦ Connection-oriented transport ◦ Reliable Data Transfer ◦ Transmission Control Protocol (TCP) ◦ User Datagram Protocol (UDP) ◦ Flow control Read K&R Chapter 3.3 – 3.5 Midterm Exam (Available Saturday – Monday only)

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<p>#5: 07/17 – 07/24</p> <p>Week 5 Summary Exercises Lab #3</p> <p>Week 5 Summary Exercises Lab #2 Program #1</p>	<ul style="list-style-type: none"> • Transport Layer <ul style="list-style-type: none"> ○ Congestion control ○ TCP Connections & Fairness • Network Layer <ul style="list-style-type: none"> ○ Introduction ○ Internet protocols ○ Datagram Routing & Forwarding ○ Internet Protocol (IPv4) Header ○ Routing vs. Forwarding <p>Read K&R Chapter 3.6 – 3.8, 4.1 – 4.3</p>
<p>#6: 07/24 – 07/31</p> <p>Week 6 Summary Exercises Quiz #2 Program #2</p> <p>Week 6 Summary Exercises Quiz #2 Lab #3</p>	<ul style="list-style-type: none"> • Network Layer <ul style="list-style-type: none"> ○ Classless Inter-Domain Routing (CIDR) ○ Dynamic Host Configuration Protocol (DHCP) ○ Routing algorithms ○ Fragmentation ○ Internet Control Message Protocol (ICMP) <p>Read K&R Chapter 4.4 – 4.5</p>
<p>#7: 07/31 – 08/07</p> <p>Week 7 Summary Exercises Lab #4</p> <p>Week 7 Summary Exercises Program #2</p>	<ul style="list-style-type: none"> • Network Layer <ul style="list-style-type: none"> ○ Network Address Translation (NAT, NAPT) ○ Internet Protocol (IPv6) • Link Layer <ul style="list-style-type: none"> ○ Network interfaces ○ Multiple Access protocols ○ MAC addresses ○ Address Resolution Protocol (ARP) ○ Local Area Networks (LAN) <ul style="list-style-type: none"> ▪ Ethernet <p>Read K&R Chapter 5.1 – 5.4, 5.7</p>
<p>#8: 08/07 – 08/14</p> <p>Week 8 Summary Exercises</p> <p>Week 8 Summary Exercises Lab #4 due FRIDAY</p> <p>Final Exam Dates: 08/12 – 08/14</p>	<ul style="list-style-type: none"> • Link Layer <ul style="list-style-type: none"> ○ Ethernet Frame and Multiple Access ○ Wireless networks ○ Networking Mobility • Network security • Cryptography <p>Read K&R Chapter 6.1 – 6.3, 8.1 – 8.3</p> <p style="text-align: center;">Final Exam (Available Friday – Sunday only)</p>