

## CS 372 Introduction to Computer Networks Course Calendar\* Spring 2018

\*NOTE: Weeks are shown Sunday through Sunday. Assignments are due the 2<sup>nd</sup> Sunday, unless otherwise noted.

\*NOTE: Subject to change based on material pace

New Assignments in **BLACK**. Due Assignments in **RED**

| Unit / Week  | Topics   |
|--|--|
| <b>#1:</b> 04/01 – 04/08<br><br><b>Lab #1</b> is assigned<br><br><b>Weekly Summary #1</b> assigned<br><b>Weekly Summary #1</b> due                                 | <ul style="list-style-type: none"> <li>• Basic concepts</li> <li>• Networking metrics</li> <li>• Network protocols</li> <li>• Network edge/core</li> <li>• Circuit-switching / Packet-switching</li> </ul> <b>Read K&amp;R Chapter 1.1 – 1.4</b>   |
| <b>#2:</b> 04/08 – 04/15<br><br><b>Lab #1</b> is due<br><br><b>Weekly Summary #2</b> assigned<br><b>Weekly Summary #2</b> due                                      | <ul style="list-style-type: none"> <li>• Physical media</li> <li>• Layering models</li> <li>• Security issues</li> <li>• Application layer</li> </ul> <b>Read K&amp;R Chapter 1.5 – 1.8, 2.1</b>   |
| <b>#3:</b> 04/15 – 04/22<br><br><b>Lab #2</b> is assigned<br><br><b>Quiz #1</b><br><br><b>Weekly Summary #3</b> assigned<br><b>Weekly Summary #3</b> due           | <ul style="list-style-type: none"> <li>• Application layer protocols             <ul style="list-style-type: none"> <li>○ Hypertext Transfer Protocol (HTTP)</li> <li>○ File Transfer Protocol (FTP)</li> <li>○ Mail (SMTP, POP3, IMAP)</li> <li>○ Domain Name Services (DNS)                 <ul style="list-style-type: none"> <li>▪ Network byte order</li> </ul> </li> </ul> </li> </ul> <b>Read K&amp;R Chapter 2.2 – 2.4, 2.7 (2.6 optional)</b> |
| <b>#4:</b> 04/22 – 04/29<br><br><b>Program #1</b> is assigned<br><br><b>Lab #2</b> is due<br><br><b>Weekly Summary #4</b> assigned<br><b>Weekly Summary #4</b> due | <ul style="list-style-type: none"> <li>• Transport Layer</li> <li>• Socket programming</li> <li>• Multiplexing/Demultiplexing</li> <li>• Connectionless transport</li> <li>• Connection-oriented transport</li> <li>• User Datagram Protocol (UDP)</li> <li>• Reliable Data Transfer</li> </ul> <b>Read K&amp;R Chapter 3.1 – 3.3</b>  |
| <b>#5:</b> 04/29 – 05/06<br><br><b>Lab #3</b> is assigned<br><br><b>Program #1</b> is due<br><br><b>Weekly Summary #5</b> assigned<br><b>Weekly Summary #5</b> due | <ul style="list-style-type: none"> <li>• Reliable Data Transfer</li> <li>• Transmission Control Protocol (TCP)</li> <li>• Flow control</li> </ul> <b>Read K&amp;R Chapter 3.4 – 3.5</b>  |

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|---|--|
| <p>#6: 05/06 – 05/13</p> <p><b>Lab #3 is due</b></p> <p><b>Midterm Exam</b></p> <p><b>Weekly Summary #6 assigned</b><br/> <b>Weekly Summary #6 due</b></p>                | <ul style="list-style-type: none"> <li>• Congestion control</li> <li>• Fairness</li> <li>• Network layer</li> </ul> <p><b>Read K&amp;R Chapter 3.6 – 3.8</b></p> <p style="text-align: center;"><b>Midterm Exam</b><br/> <b>(Available Thursday – Sunday only)</b></p>   |
| <p>#7: 05/13 – 05/20</p> <p><b>Lab #4 is assigned</b></p> <p><b>Program #2 is assigned</b></p> <p><b>Weekly Summary #7 assigned</b><br/> <b>Weekly Summary #7 due</b></p> | <ul style="list-style-type: none"> <li>• Virtual circuits</li> <li>• Internet protocols</li> <li>• Datagram routing</li> <li>• Internet Protocol (IPv4)</li> <li>• Classless Inter-Domain Routing (CIDR)</li> <li>• Dynamic Host Configuration Protocol (DHCP)</li> </ul> <p><b>Read K&amp;R Chapter 4.1 – 4.3</b></p>   |
| <p>#8: 05/20 – 05/27</p> <p><b>Quiz #2</b></p> <p><b>Lab #4 is due</b></p> <p><b>Weekly Summary #8 assigned</b><br/> <b>Weekly Summary #8 due</b></p>                     | <ul style="list-style-type: none"> <li>• Routing algorithms</li> <li>• Fragmentation</li> <li>• Internet Control Message Protocol (ICMP)</li> <li>• Network Address Translation (NAT, NAPT)</li> </ul> <p><b>Read K&amp;R Chapter 5.1 – 5.3, 5.6</b></p>   |
| <p>#9: 05/27 – 06/03</p> <p><b>Lab #5 is assigned</b></p> <p><b>Program #2 is due</b></p> <p><b>Weekly Summary #9 assigned</b><br/> <b>Weekly Summary #9 due</b></p>      | <ul style="list-style-type: none"> <li>• Internet Protocol (IPv6)</li> <li>• Link Layer</li> <li>• Network interfaces</li> <li>• Multiple Access protocols</li> <li>• MAC addresses</li> <li>• Address Resolution Protocol (ARP)</li> <li>• Local Area Networks (LAN) <ul style="list-style-type: none"> <li>◦ Ethernet</li> </ul> </li> </ul> <p><b>Read K&amp;R Chapter 6.1 – 6.4, 6.7</b></p> |
| <p>#10: 06/03 – 06/10</p> <p><b>Lab #5 is due</b></p> <p><b>Weekly Summary #10 assigned</b><br/> <b>Weekly Summary #10 due</b></p>  | <ul style="list-style-type: none"> <li>• Wireless networks</li> <li>• Network security</li> </ul> <p><b>Read K&amp;R Chapter 7.1 – 7.3, 8.1 – 8.3</b></p>  |
| <p>#11: 06/10 – 06/13</p> <p><b>Finals Week</b></p>   | <p style="text-align: center;"><b>Final Exam</b><br/> <b>(Available Sunday – Wednesday only)</b></p>   |