

COMP 631

Networked & Distributed Systems

Fall 2018

Logistics

- *Class Timings:* TR, 12:30 – 1:45 pm
 - *Classroom:* SN 115
 - *Instructor:* Jasleen Kaur
 - *URL:* <http://www.cs.unc.edu/~jasleen/Courses/COMP631>
 - *Email:* jasleen@cs.unc.edu
-

Grading

Rough breakdown (may be changed by $\pm 10\%$ in each category):

- Assignments/Discussions: 20%
 - Oral Exam: 25%
 - Class participation: 10%
 - Project: 35%
 - Paper Presentation: 10%
-

Course Topics

Topics to be covered in the first half of the course focus on the *Internet protocol stack*:

Error Detection, Shared Media Access, Forwarding Approaches, IP service model, Addressing, Routing Protocols, BGP, Classless Inter-domain Routing, Reliability, Flow Control, Congestion Control.

Topics to be covered in the second half of the course focus on *global-scale distributed systems*:

Virtualization (VPNs, NATs, Overlay Networks), DNS, Indirection (I3, Mobile IP, Multicast), DHTs, Content Distribution Systems, Data Center Networks, and Cloud Networks.

Pre-requisites

COMP 431 (Internet Services and Protocols), Socket Programming, Working knowledge of Unix. Preferable: COMP 530 (Operating Systems).
