Lecture 0
Welcome to CSC 175

Z. Gu
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Instructor Information

- **Instructor:** Dr. Zonghua Gu
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- **Office:** SIC 219
- **Office hours:** Tue 3:00-5:00 pm

Course Goals

- A technical introduction to data communication. Topics include the OSI Reference Model, layer services, protocols, LANs, packet switching and X.25, ISDN, File transfer, virtual terminals, system management and distributed processing.
- Course materials: https://guhofstra.github.io/CSC175

Course Topics

- Origins of digital communication;
- Basics of network protocols;
- Circuit and packet-switched networks;
- Physical and link protocols: WiFi, Ethernet, cellular
- The IP protocol;
- Traffic management protocols: TCP, UDP, QUIC;
- Test-driven development and executable specifications;
- Application protocols: HTTP
- Public/private encryption basics
- Network security: IPSec, TLS, and certificate authorities
- Distributed systems

Textbook

- Jim Kurose, Keith Ross, Computer Networking: a Top Down Approach (Pearson). 8th edition.
- Book homepage with video lectures:
  - https://gaia.cs.umass.edu/kurose_ross/index.php

Grading Policy

- Midterm exam: 30%
- Final Exam: 50%
- Assignments/Labs: 20%

- **Late Days:** Each student is allowed a total of 3 late days for this class, which may be spent in units of one day (24 hours) on any project(s) throughout the semester. Once your late days have been used up, late work will not receive any credit. Late days are intended to handle all issues, including unexpected problems such as illness.