Week 1: Part 0
About the class

CS 417 – DISTRIBUTED SYSTEMS – FALL 2022

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Canvas: https://rutgers.instructure.com/courses/186676
web: www.cs.rutgers.edu/~pxk/417
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• No textbook for the course

• Course reading material
  – Lecture notes
  – Lecture slides
  – Published papers
  – Web documents
Policy

• **Short programming assignments**: ~3
  – Individual assignments
  – Due *prior* to the due date/time

• **Almost-weekly written assignments**
  – Most likely multiple choice or short answer on Canvas
  – Due *prior* to the due date/time

• **Collaboration & academic integrity**
  – Individual assignments – no copying!
  – All suspected violations will be reported to the Academic Integrity office
Grades

• Three exams
  – Normalized grades:
    \[
    \text{gpa} \equiv \left[ 3.15 + \frac{(g - \bar{g})}{\sigma} \right] \sim 45\%
    \]
  + 1 final exam: lowest of four exam grades dropped
• ~Weekly written assignments \sim 25\%
• ~3 Programming assignments \sim 35\%

*This is subject to change!!*
What we’ll cover

Generally, one topic per week

- Faults
- Networking
- Communication
- Time
- Groups & replication, Consensus
- File systems: NAS, Parallel FS
- Distributed lookup
- Transactions
- Large-scale storage
- Content delivery
- Event streaming
- Parallel computation
- Clusters
- Security: Identity & authentication
What this course is NOT

• How to write web services
• How to use Azure, AWS, Google Cloud, etc.
• Big data analytics
• How to administer collections of computers
The End