
Advanced Computer Networks: Course Plan

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- *“Welcome! Before we begin, let’s sort a couple of things.”*



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Particulars

- Credits: 4
- Coverage: State-of-the-art of computer networking
- Language: Content delivery, exams, etc. will be in English
- Schedule: Monsoon semester (Monday & Thursday 15:30-17:00)
- Webpage: *<https://ciaoankit.github.io/teaching.html>*
- TA: {aashish.paliwal, p.sahithi}@research.iiit.ac.in

Course contents

- Concepts of advanced computer networking
 - Congestion control
 - Queue management
 - Middleboxes
 - Tunneling
 - Interdomain routing
 - Network measurement
 - Traffic engineering
 - DNS and CDN
 - Network security concepts
 - Modern networking paradigms: SDN, ICN, CCN, and NDN

PS: Course contents may vary depending on the interest and response from the students

Grading, examinations, and policies

- Grading
 - Absolute grading
 - Final grade set: {A, A-, B, B-, C, C-, D, F} | No 'P' grade possible
- Examinations & marks distributions
 - Mid-term exams, quizzes : 50%
 - End-term exam : 50%
- Policies
 - Do and submit your own original work
 - Cheating, plagiarism, and academic dishonesty will carry consequences

Textbooks and references

- There is no single textbook that can cover entire course material, some good references to start are given below (most of them are available on the Internet)
 1. L. L. Peterson and B. S. Davie. "Computer Networks: A Systems Approach."
 2. J. F. Kurose and K. W. Ross. "Computer Networking: A Top-Down Approach."
 3. J. Day. "Patterns in Network Architecture: A Return to Fundamentals."
 4. Research papers.

Setting expectations

- Don't expect 24x7 answers
 - Instructors are not on duty 24x7
 - Don't expect response before next business day
 - Queries over weekend should never expect fast responses
 - Be happy with something before Monday
- Try to figure out yourself
 - Students should answer each other; start your assignments early!
- Forums are not for debugging
 - Utilize right venue: Go to TA office hours
 - Send detailed Q's/bug reports
 - Not *"no idea what's wrong"*



How many bits in a byte?

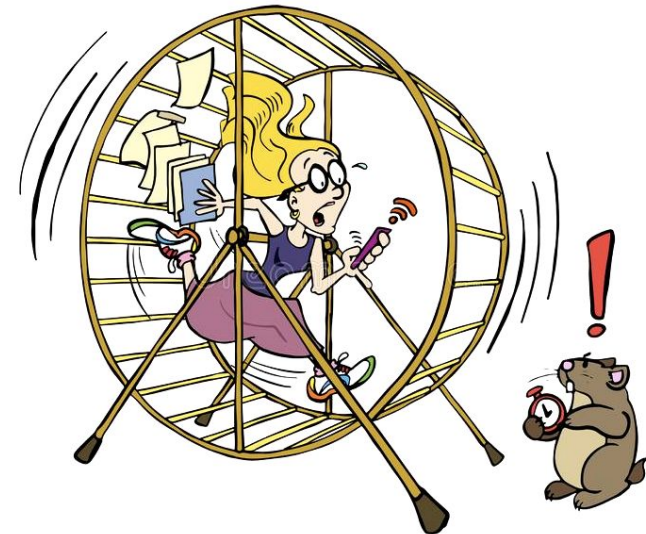
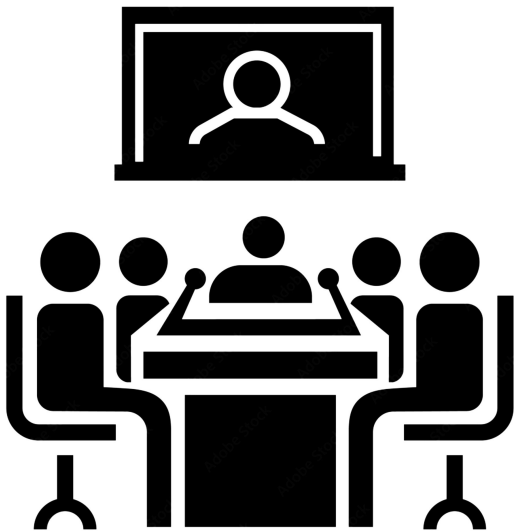
- “Finally, prioritize things!”

WHAT TO DO WHEN YOU'RE OVERWHELMED WITH WORK



Other important activities

- Participate in our user studies and events
 - Details will be shared as and when available/applicable



Good luck.
Thank you!