

01219224 Computer Network Architecture & Programming

Sec 450 1st semester 2019 (Aug – Dec)

Instructor Information

Instructor: Asso.Prof. Anan Phonphoem, Ph.D. (รศ.ดร.อนันต์ ผลเพิ่ม)
Office: Building 15, Room # 407
Office Hours: Monday 9:00 – 12:00 (Walk-In) or by appointment
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Course Information

Lecture: Thu 09:00 – 12:00 Building 15, Room 204
Class URL: <http://www.cpe.ku.ac.th/~anan/> → Teach
Prerequisite: -

Course Description: Data communication network; data transmission; data link controls; local area network and wide area network; communication architecture and protocols; service-oriented programming.

Course Objective: Students become familiar with Data Communications and Network concepts and terminologies. Students should understand the network characteristics, certain network applications and security.

Text Book: “**Computer Networks and Internets**”, *Douglas E. Comer*, Person Education Inc., Prentice Hall, 4th Edition, 2004, ISBN 0-13-123627-X

Supplement: “**Data Communications and Networking**,” Behrouz A.Fourouzan, Mc Graw-Hill, ISBN 0-07-118160-1

Tentative Grades

Midterm exam: 40 %
Final exam: 40 %
Quiz: 10 %
HW and assignment (project): 10 %
Attendance: **If** ((Attendance Score \geq **0.85**) **and** (You are the **1st rank** for the particular grade))
Then (one stop adjustment automatically) /* e.g. “C+” becomes “B” */

Attendance Score

Description	Score (0 – 1)
0 – 20 min	1
20.01 – 90 min (Late)	0.5
> 90 min (Absent)	0
If missing class	
• with “letter of leave of absence in advanced”	0.5
• without “letter of leave of absence in advanced”	0

Grading Policy

- Your Grade is based on the overall class performance. However, the cumulative score below 50% is considered as fail (F).
- An “F” grade will be given to any form of cheating (for all parties).
- You are not allowed to take the exam (or quiz) if > 20 min late.
- Make-up exam will only be provided for restrict circumstances such as severe illness.

Assignment Policy

- All hard-copy assignments must be handed in at the beginning of the class (> 20 min. is considered late). For soft-copy will be timed by the local time stamp.
- No Late assignment will be graded.
- No credit for plagiarism and considered as cheating.
- No credit for copying homework or assignment (for all copies) and considered as cheating.

Tentative Course Schedule

Week	Description
1	Course orientation Introduction to Computer Network and Internet; Network Applications
2	Network models
3	Signals and Information Sources
4	Transmission media Reliability in communication
5	Modulation and Demodulation Access Technologies
6	Medium Access Control Data Link Layer Standards
7	Network Programming and Traffic Analysis (hands-on lab) Internet Applications
	Midterm Exam
8	Wireless Network Technologies Extending LANs
9	IP Addressing
10	Web services
11	Internetworking and Dynamic Routing Datagram Forwarding
12	Supporting Protocols in TCP/IP Suites
13	TCP and UDP
14	IP version 6
15	SDN
	Final Exam