

01204421 Computer Networks

2nd Semester 2020 (Dec 2020 – Apr 2021)

Instructor Information

Instructor:	Asso.Prof. Anan Phonphoem, Ph.D. (รศ.ดร.อนันต์ ผลเพิ่ม)
Office:	Building 15, Room #407 and #710 (Iwing Lab)
Office Hours:	Monday 11:00 – 12:30 (Walk-In) or by appointment (See Schedule)
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Email:	anan.p@ku.ac.th
URL:	http://www.cpe.ku.ac.th/~anan/
Research Lab:	Intelligent Wireless Network Group (IWING) http://iwing.cpe.ku.ac.th

Course Information

Lecture:	Mon 13:00 – 16:00, Building 15, Room E204
Class URL:	http://www.cpe.ku.ac.th/~anan/
Prerequisite:	-
Course Description:	Internet Protocol version 4 and 6; ICMP and IGMP; Multicast; Classless Inter-domain Routing; Routing Algorithm (RIP, OSPF, IS-IS, and BGP); Transport Protocol (TCP and UDP); Multiprotocol Label Switching (MPLS); Application Protocols; Network Management and Security
Course Objective:	Students become familiar with Computer Network concepts and terminologies for current and coming technologies. Students should understand the network characteristics and implementation.
Text Book:	“ TCP/IP Protocol Suit ,” Behrouz A.Fourouzan, Mc Graw-Hill, 3 rd Edition, ISBN 0-07-111583-8
Supplement:	“ Computer Networks, A System Approach ”, Larry Peterson and Bruce S. Davie, Morgan Kaufmann, 4 th Edition, 2007, ISBN 0-12-374013-4 “ The Internet and Its Protocols ”, Adrian Farrel, Morgan Kaufmann, 2004, ISBN 1-55860-913-X

Grades

Midterm exam:	43 %
Final exam:	44 %
HW-Quiz-Project:	13 % (this is a tentative percentage, subject to change)
Attendance:	If ((Attendance Score \geq 0.90) and (You are the 1st rank for the particular grade)) Then (one stop adjustment automatically) /* e.g. “C+” becomes “B” */

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).
- Make-up exam will only be provided for restrict circumstances such as severe illness.
- You are not allowed to take a midterm exam if you miss more than 2 lectures and also not allowed to take final exam if you miss more than 4 lectures.

Assignment Policy

- All hard-copy assignments must be handed in at the beginning of the class (> 15 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; Data Communication Review (Protocols; Addressing; Layering Concept)
2	Internet Protocol (IPv4) I; Addressing
3	Internet Protocol (IPv4) II; Supporting Protocol (ARP, ICMP)
4	Internet Protocol (IPv4) III
5	NAT, DHCP
6	Multicast; Addressing; IGMP
7	IPv6; Addressing; IPv4 and IPv6 Comparison
	Midterm Exam
8	CIDR, VLSM
9	Routing Protocol I; Routing concept, RIP and OSPF
10	Routing Protocol II; IS-IS; BGP; Multicast Routing
11	Transport Protocol; UDP and TCP
12	Software-Defined Networking (SDN)
13	Multiprotocol Label Switching (MPLS); Application Protocol I; Concept
14	Application Protocol I ; DNS, Telnet, FTP
15	Application Protocol II ; SMTP ; Network Security
	Final Exam