HANYANG UNIVERSITY

Hanyang International Summer School

Faculty Information	**Name**	Youngjoon Won				
	E-mail	youngjoon@hanyang.ac.kr				
	Home University	Hanyang University				
	Department	Dept. of Information Systems				
	Homepage	https://young.hanyang.ac.kr				
Course Information	**Class No.**	18035	**Course Code**	ENE4019	**Credits**	3
	Course Name	Computer Networks				
	Lecture Schedule	Monday-Saturday / 9:00-12:00				
	Course Description	This course introduces the fundamentals of network (Internet) architectures and methods. Our emphasis is placed on how the Internet works in general.				
	Course Objective	Introducing the fundamentals of network (Internet) architectures and methods: - fundamental concepts of networking and how they apply to the Internet - hands on experience with networking protocols and analysis techniques - how the Internet or DC are connected in general - up-to-date research issues (e.g., Data Center, Internet measurement)				
	Prerequisite	None				
	Materials/Textbooks	"Computer Networking: A Top-Down Approach", Kurose & Ross. Course materials will be given in class.				

Evaluation	**Attendance**	10 %	**Quiz**	%
	Assignment	20 %	**Mid-term Exam**	20 %
	Presentation	%	**Final Exam**	40 %
	Group Project	%	**Participation**	10 %
	Etc.	**Evaluation Item**		**Ratio**
		Midterm Exam		20 %
		Final Exam		40 %

Daily Lecture Plan	Day 1	Introduction to networks: protocol, layering
	Day 2	Introduction to networks: ISPs, Internet architecture
	Day 3	Application layer: Principles (RTT, Delay, Bandwidth), HTTP
	Day 4	Application layer: DNS, and other popular protocols
	Day 5	Transport layer: socket, TCP, UDP
	Day 6	Transport layer: Reliable Data Transfer design I
	Day 7	Transport layer: Reliable Data Transfer design II
	Day 8	Congestion control mechanism

	Day 9	Networking layer: Internet Protocol I
	Day 10	Networking layer: Internet Protocol II
	Day 11	Internet routing algorithms
	Day 12	Research topics overview (paper review)
	Day 13	Data Link layer: Multiple access protocol
	Day 14	Data Link layer: Ethernet
	Day 15	Final Exam, Graduation