



# HANYANG UNIVERSITY

## Hanyang International Summer School

<b>Faculty Information</b>	<b>Name</b>	Youngjoon Won					
	<b>E-mail</b>	youngjoon@hanyang.ac.kr					
	<b>Home University</b>	Hanyang University					
	<b>Department</b>	Dept. of Information Systems					
	<b>Homepage</b>	<a href="https://young.hanyang.ac.kr">https://young.hanyang.ac.kr</a>					
<b>Course Information</b>	<b>Class No.</b>	TBA	<b>Course Code</b>	ENE4019	<b>Credits</b>	3	
	<b>Course Name</b>	Computer Networks					
	<b>Lecture Schedule</b>	Monday-Saturday / 9:00-12:00					
	<b>Course Description</b>	This course introduces the fundamentals of network (Internet) architectures and methods. Our emphasis is placed on how the Internet works in general.					
	<b>Course Objective</b>	Introducing the fundamentals of network (Internet) architectures and methods: <ul style="list-style-type: none"> <li>- fundamental concepts of networking and how they apply to the Internet</li> <li>- hands on experience with networking protocols and analysis techniques</li> <li>- how the Internet or DC are connected in general</li> <li>- up-to-date research issues (e.g., Data Center, Internet measurement)</li> </ul>					
	<b>Prerequisite</b>	None					
	<b>Materials/Textbooks</b>	"Computer Networking: A Top-Down Approach", Kurose & Ross. Course materials will be given in class.					
<b>Evaluation</b>	<b>Attendance</b>	10 %	<b>Quiz</b>	%			
	<b>Assignment</b>	20 %	<b>Mid-term Exam</b>	20 %			
	<b>Presentation</b>	%	<b>Final Exam</b>	40 %			
	<b>Group Project</b>	%	<b>Participation</b>	10 %			
	<b>Etc.</b>	<b>Evaluation Item</b>			<b>Ratio</b>		
		Midterm Exam			20 %		
Final Exam			40 %				
<b>Daily Lecture Plan</b>	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