COURSE DETAIL

COMPUTER NETWORK
Country Korea, South
Host Institution Korea Advanced Institute of Science and Technology (KAIST)
Program(s) Korea Advanced Institute of Science and Technology, KAIST
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 119
UCEAP Course Suffix
UCEAP Official Title COMPUTER NETWORK
UCEAP Transcript Title COMPUTER NETWORK
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course covers the fundamental concepts and principles that shape modern computer networks, helping students understand how the Internet is designed and is being operated in practice, and the course prepares students to think about current issues. Class content is introduced top-down, starting with the applications that are most familiar to students, such as the Web and e-mail. Students gain a hands-on perspective by writing their own simplified versions of popular Internet protocols.

Topics include HTTP and FTP, Socket programming, Transport layer overview and Reliable data transfer, TCP and congestion control, Network layer, Virtual circuits, Datagrams, Forwarding, IP and ICMP, Routing algorithms and protocols, Link layer, Error detection and multiple access, ARP, Ethernet, hubs and switches, Wi-Fi, Email security and SSL, IPSec, VPN, Wireless LAN security, and more.

Prerequisite: EE209 Programming Structure for Electrical Engineering or similar

Language(s) of Instruction
English

Host Institution Course Number
EE.30023,EE323

Host Institution Course Title
COMPUTER NETWORK

Host Institution Course Details
https://erp.kaist.ac.kr/

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2025-2026

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