

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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