

COURSE DETAIL

COMPUTER COMMUNICATION AND NETWORKS

Country

United Kingdom - Scotland

Host Institution

University of Edinburgh

Program(s)

Intern: Scotland, University of Edinburgh

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Computer Science

UCEAP Course Number

133

UCEAP Course Suffix**UCEAP Official Title**

COMPUTER COMMUNICATION AND NETWORKS

UCEAP Transcript Title

COMPUTER NETWORKS

UCEAP Quarter Units

8.00

UCEAP Semester Units

5.30

Course Description

This is a comprehensive first course in computer communications and networks. The course introduces basic networking concepts, including protocol, network architecture, reference models, layering, service, interface, multiplexing, switching, and standards. An overview of digital communication from the perspective of computer networking is also provided. Topics include internet (TCP/IP) architecture and protocols, network applications, congestion/flow/error control, routing and internetworking, data link protocols, error detection and correction, channel allocation and multiple access protocols, communication media, and selected topics in wireless and data center networks. It covers recent advances in network control and management architectures by introducing the concepts of software-defined networking (SDN) and network (function) virtualization. Students gain hands-on experience in network programming using the socket API, network traffic/protocol analysis, and on assessment of alternative networked systems and architectures.

Language(s) of Instruction

English

Host Institution Course Number

INFR10074

Host Institution Course Title

COMPUTER COMMUNICATION AND NETWORKS

Host Institution Course Details

Host Institution Campus

Edinburgh

Host Institution Faculty

Host Institution Degree

Host Institution Department

Informatics

Course Last Reviewed

[Print](#)