

University of Haifa
Information and Knowledge Management
Internet Technologies
(13:00 – 16:00)
Course number: 218.5211
Instructor: Ossi Mokryn
omokryn@univ.haifa.ac.il

Course Overview and Objectives

It is difficult to imagine modern life without communication between computers, and of course - the greatest wonder known as "Internet" - a tremendous change brought with digital communication into our lives. The purpose of this course is to understand the magic. How can information that is stored on one computer, suddenly pop up on another computer? What are the key mechanisms in this world?

The course reviews the basic concepts in Internet technology, such as networks, protocols, client-server model, HTTP, DNS, IP, data centers, clouds. The course's aim is to enable the students to gain full understanding of the Internet mechanisms that drive our social and economical world. After taking this course the students will become Internet savvy and will have a fundamental understanding of the main concepts.

Open discussions and questions in class on anything that is of interest to you is part of the spirit of the course. Subjects extending the basic curriculum that are discussed in class are not in the material needed for homework and exam.

The course, to some extent, uses slides and information from the book
Computer Networking: A Top-Down Approach / James F. Kurose and Keith W. Ross
(6th edition preferred)

No prior knowledge is needed or assumed

Methodology

Lectures are given in Hebrew, using slides that are in English. The purpose is twofold: familiarize the students with the technical terminology, and with the style in the textbook.

Lectures are supplemented by in-class discussions

Grades

Class Participation: 15%

2 Home works, 15% each: 30%

Final exam: 55%

Attendance policy is defined by the program's requirements

Homework

Submission is allowed and even encouraged *in pairs*, to promote collaboration between the students. Please do not split the work but rather work on it together. The final exam is given under the assumption you have thought yourself on each and every exercise given in the homeworks.

Submitting Homeworks:

All homeworks must be submitted via the Moodle system.

Additional Material

Computer Networking: A Top-Down Approach / James F. Kurose and Keith W. Ross (6th edition preferred)

Final Exam

The exam will be in Hebrew, with technical words appearing in English if that is how they were taught during the course.

Schedule:

Date	Topic
05/03/19	Introduction – Client-Server Paradigm, Application layer and Transport Services
26/03/19	Domain Name System; Transport ports
02/04/19	Web basics, HTTP over TCP, HTML5
16/4/19	TCP / IP
16/4/19	Internet Protocol
30/4/19	Data Centers, Web Technologies, Clouds
30/4/19	Cloud and Content Distribution Networks