האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

INTERNET PROTOCOLS: THEORY AND PRACTICE - 67828

Last update 03-01-2014

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Computer Science

Academic year: 3

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: Dr. Michael Schapira

Coordinator Email: schapiram@huji.ac.il

Coordinator Office Hours: by appointment

Teaching Staff:
Dr. Michael Schapira

Course/Module description:
We will discuss the algorithms and protocols that make the Internet tick including: Internet routing (BGP, OSPF), traffic engineering, congestion control (UDP, TCP). We will analyze these algorithms from a theoretical perspective and also learn how they are used in practice. We will also learn about new technologies and paradigms in computer networking (e.g., software-defined networking, datacenter networking).

Course/Module aims:
Provide students with a theoretical and practical understanding of computer networking

Learning outcomes - On successful completion of this module, students should be able to:
Explain the core protocols underlying and Internet and reason about them from a theoretical and practical perspective.

Attendance requirements(%):
100

Teaching arrangement and method of instruction: frontal lectures + home assignments

Course/Module Content:
Internet routing
congestion control
traffic engineering
datacenters
software-defined networks
design principles of the Internet

Required Reading:
NA

Additional Reading Material:

NA

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 40 %
Assignments 60 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:
NA