Courses in English
Course Description

Department 07 Computer Science and Mathematics

Course title Computer Networks

Hours per week (SWS) 4

Number of ECTS credits 5

Course objective Obtain basic knowledge of networking principles and protocols; Understanding the domain-specific terms; Ability to design and implement computer networking applications; Ability to trace and analyse network traffic and to identify typical networking problems.

Prerequisites Software development / programming in Java (for programming assignments in exercises of the course)

Andrew S. Tanenbaum, Computer Networks, Prentice Hall International

Teaching methods lecture (2 SWS) + exercises (2 SWS)
Online support (Moodle), Powerpoint slides/animations
Exercises: combination of theoretical questions and programming assignments

Assessment methods written exam (90 minutes), prerequisite: passing the exercises

Language of instruction English

Name of lecturer Prof. Dr. Alexandru Soceanu

Email alexandru.soceanu@hm.edu

Link https://w3-o.cs.hm.edu:8000/public/module/59/

Course content basics of computer networking, ISO/OSI and Internet layers, network topologies, typical network protocols on the application layer (e.g., HTTP, SMTP, DNS), connection-oriented and connectionless transport protocols (UDP, TCP), mechanisms for reliable data transfer, flow control and congestion control, Internet Protocol in Version 4 and 6 (IPv4, IPv6), current trends in computer networking.

Remarks