

Name: Computer Networks		NEPTUN-code: NIXSHOEBNE	Number of periods/week: full-time: 2 lec + 0 sem + 2 lab
Credit: 4 Requirement: exam		Prerequisite: NIXB11EBNE Basics of information systems	
Responsible: András RÖVID, Ph.D.	Position: associate professor	Faculty and Institute name: John von Neumann Faculty of Informatics Institute of Applied Mathematics	
Way of assessment: - requirements for signature: passing the mid-terms - written exam			
Competences			
Course description:			
<p>The course covers the basics of computer networks with emphasis on the Internet. Students are introduced to networks' architectural and functional principles, essential terminology, working methods and layered approach of the reference models. They get to know the operating model of the TCP/IP protocol stack, the architecture of the Internet, its hierarchical addressing system, the functioning of protocols ensuring basic Internet services. Other areas of coverage include the main functioning methods of computer networks, their opportunities for use, performance characteristics and specifics of application. Students also familiarize themselves with the physical data transfer environment of computer networks, the methods and characteristics of their use and some details of operation.</p> <p>Main competencies: network reference models, Internet basics, Internet's hierarchical addressing method, domain name system (DNS), IP protocol, basic ideas of packet switching and routing, concepts of connectionless and connection full data transfer, transport protocols and their performance, wired and wireless local area networks, basics of Ethernet.</p>			
Literature			
<p>A. S. Tanenbaum és D. J. Wetherall: Computer Networks, 3rd edition, Panem, Budapest, 2013 (in Hungarian)</p> <p>A. S. Tanenbaum and D. J. Wetherall: Computer Networks, 5th edition, Prentice Hall, 2011 (electronic notes)</p>			