



<b>The Faculty of:</b>	Faculty of Electrical and Computer Engineering
<b>Field of study:</b>	Computer Science
<b>Speciality:</b>	
<b>Study degree (BSc, MSc):</b>	First circle full time studies

### COURSE UNIT DESCRIPTION

<b>Course title:</b>	Computer networks
<b>Lecturer responsible for course: dr. Kazimierz Lal</b>	
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<b>Department : Department of Electrical Engineering and Informatics</b>	

Semester	Weekly load	Type of classes				Number of ECTS credits
		L Lectures	C Theoretical Classes	Lb Laboratory	P Project	
5	2	15		15		4

Course description
<p><b>Lecture:</b>            TCP/IP protocol - version 6: IP v.6 datagram structure, datagram segmentation, addressing system, IP v.6 and Ethernet, routing, transmission stream reservation mechanism, quality of service, Voice over IP.</p> <p>Selected network operating systems - installation and configuration: Microsoft Windows network servers, Novell network servers.</p> <p>Directory services in computer networks: e-Directory, Active Directory and LDAP.</p> <p>Security in computer networks.</p> <p>Planning, implementation and using computer network - examples.</p> <p>Virtual machines and cluster network systems.</p>
<p><b>Classes:</b></p>
<p><b>Laboratory:</b>            Configuration and tests selected Ethernet switches – IPv.6.</p> <p>Introduction to routing problems – TCP/IPv.6 networks.</p>

e-Directory installation and configuration.

Active Directory installation and configuration.

Tests of selected tools to the security network systems.

Tests of selected tools to the virtually network servers and workstations.

Credit - test.

**Project:**

### **Objectives of the course**

Student should obtain theoretical knowledge and practical understanding of subject and skill of maintaining computer networks.

### **Examination method**

Final examination, oral or written test on each laboratory, credit test from laboratory.

### **Bibliography**

Sportack M.: Sieci komputerowe Księga eksperta, Wydanie II – poprawione, HELION, 2004; Akademia CISCO. Pierwszy i drugi rok nauki. Mikom 2004; Akademia CISCO. Trzeci i czwarty rok nauki. Mikom, 2005; Akademia CISCO. VIP; 3Com. Dokumentacje techniczne przełączników i ruterów; Hunt C.: TCP/IP - Administracja sieci, RM, 2003; Lal K., Rak T.: Linux a technologie klastrowe, PWN-MIKOM, 2005; Lal K., Rak T.: Po prostu własny serwer internetowy, HELION, 2002; Rak T.: Tworzenie sieci komputerowej. Ćwiczenia praktyczne, HELION, 2006.

<b>Lecturer signature</b>	
<b>Head of Department signature</b>	
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