



<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 part time studies

### COURSE UNIT DESCRIPTION

<b>Course title:</b>	Telecommunication systems
<b>Lecturer responsible for course: dr. Kazimierz Lal</b>	
<b>Contacts: phone: 48178651767</b>	<b>e-mail: klal@prz-rzeszow.pl</b>
<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	
7	2	10		10		3

Course description
<p><b>Lecture:</b>            Classification of computer network – ISO/OSI model.             Telecommunication infrastructure.             Transmission media (Copper cables, Optical cables, Cordless media).             Analog and digital signals.             Wireless transmission.             Cable and wireless - IEEE 802 standard.             Frame Relay and ATM technologies.             SDH and WDH standards.             Analog and digital telephony – POTS, ISDN, GSM, UMTS, VoFR, VoATM and VoIP.</p>
<b>Classes:</b>

**Laboratory:**

Tools and technics installations in practice.

Installation and testing of wireless computer network.

A/c and c/a converters.

Selected problems of digital signal processing.

Configuration of Ethernet switches for second and third layers.

Configuration and testing of analog central station.

Configuration and testing of digital central station - ISDN.

Installation and configuration of communication system - VoIP.

Credit - Test.

**Project:****Objectives of the course**

Student should obtain theoretical knowledge and practical understanding of subject and skill of maintaining communication systems.

**Examination method**

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

**Bibliography**

Lal K., Rak T.: Systemy telefonii komórkowej. Oficyna Wydawnicza Politechniki Rzeszowskiej Rzeszów 2002; Haykin S.: Systemy telekomunikacyjne. Tom I i II. WKŁ Warszawa 1998; Read R.: Telekomunikacja. WKŁ, Warszawa, 2000; Simmonds A.: Wprowadzenie do transmisji danych. WKŁ, Warszawa, 1999; Siudak J.: Wstęp do współczesnej telekomunikacji światłowodowej. WKŁ, Warszawa, 1999.

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