

Title <b>Telecommunications Networks</b>	Code <b>1018011510108200078</b>
Field <b>Electronics and Telecommunications</b>	Year / Semester <b>3 / 5</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>3</b> Classes: <b>1</b> Laboratory: -    Projects / seminars: -	Number of credits <b>0</b>
	Language <b>polish</b>

**Lecturer:**

dr inż. Jerzy Kubasik  
Katedra Sieci Telekomunikacyjnych i Komputerowych  
tel. 061 665-3939, fax. 061 665-3922  
e-mail: jerzy.kubasik@et.put.poznan.pl

**Faculty:**

Faculty of Electronics and Telecommunications  
ul. Piotrowo 3A  
60-965 Poznań  
tel. (061) 665-2293, fax. (061) 665-2572  
e-mail: office\_det@put.poznan.pl

**Status of the course in the study program:**

Obligatory course for students of Electronics and Telecommunications.

**Assumptions and objectives of the course:**

Making students familiar with telecommunications' networks types, structures, numbering, signalling, interconnection, services and basic traffic theory.

**Contents of the course (course description):**

Telecommunication system. Switching methods and techniques. Switching nodes. Elements of telecommunication traffic theory. Origin, structure, and basic properties of telecommunication networks. Survey of telecommunication networks and services offered in such networks. Universal and value added services. Operators of telecommunication networks in Poland. Hierarchical and non-hierarchical structures of telecommunication networks. Traffic control strategies: alternative paths, adaptive and dynamic control. Network signaling: signals classification, signaling in local loop and inter-exchange signaling. ITU-T signaling systems. Principles of numbering in telecommunication (telephone) networks, National Numbering Plan, number portability. Principles of billing in telecommunication (telephone) networks, modern billing methods. Transmission problems in telecommunication networks. Technical and organizational aspects of cooperation between networks administered by different operators.

**Introductory courses and the required pre-knowledge:**

Probabilistic theory, mathematical statistics, fundamentals of telecommunications.

**Courses form and teaching methods:**

Lectures illustrated computer presentations and computational exercises.

**Form and terms of complete the course - requirements and assessment methods:**

Tests and/or individual mini-projects and written exam.

**Basic Bibliography:**

-

**Additional Bibliography:**

-