



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Foundations of telecommunications [N1EiT1>PT2]

### Course

Field of study

Electronics and Telecommunications

Year/Semester

3/5

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

polish

Form of study

part-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

15

Other (e.g. online)

0

Tutorials

0

Projects/seminars

0

### Number of credit points

2,00

### Coordinators

dr inż. Michał Kasznia

michal.kasznia@put.poznan.pl

### Lecturers

### Prerequisites

none

### Course objective

none

### Course-related learning outcomes

Knowledge:

1. Knows the principles of operation of analog telecommunications systems, including modulation techniques and signal demodulation.

2. He knows the basics of digital telecommunication systems, including transmission in the band basic, digital modulation, transmission of signals through transmission paths, methods of reception signals, shaping the spectral properties of signals.

3. Has a structured, mathematically based, detailed knowledge of the basics of theory telecommunications necessary to understand, analyze, evaluate the operation of analog and digital systems telecommunications.

4. Has basic knowledge of development trends in the field of telecommunications systems.

**Skills:**

1. Can solve typical tasks related to the analysis of signals in the time and frequency domain.
2. Can define the basic parameters and properties of signals and telecommunication systems imposed restrictions.
3. Able to assess the parameters determining the quality of digital signal transmission in various telecommunications tracks.

**Social competence:**

1. Knows the limitations of his own knowledge and skills, understands the need for further training.
2. Is aware of the need for a professional approach to solving problems and taking responsibility for the technical solutions they propose.
3. Can formulate opinions on the basic challenges faced by modern telecommunications

**Methods for verifying learning outcomes and assessment criteria**

Learning outcomes presented above are verified as follows:

none

**Programme content**

none

**Teaching methods**

none

**Bibliography**

none

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	130	9,00
Classes requiring direct contact with the teacher	55	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	75	7,00