



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Foundations of wireless communications [S1EiT1>PRADIOK]

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 full-time	Requirements compulsory

Number of hours

Lecture 30	Laboratory classes 15	Other (e.g. online) 0
Tutorials 15	Projects/seminars 0	

Number of credit points

4,00

Coordinators

dr inż. Krzysztof Cichoń
krzysztof.cichon@put.poznan.pl

Lecturers

Prerequisites

none

Course objective

none

Course-related learning outcomes

Knowledge:

1. Has a structured, mathematically based, detailed knowledge of the propagation of electromagnetic waves in various environments and modeling of radio channels
2. Has a structured, mathematically based knowledge of the basics of radio communication, has a basic knowledge of the architecture and operation of next-generation mobile networks
3. Has basic knowledge in the field of construction and operation of radio communication systems and devices included in radio networks.

Skills:

1. Can solve typical tasks related to the design of a radio link, its energy budget and the propagation of

electromagnetic waves

2. Can compare the systems and standards of radio transmission and choose the appropriate method of transmission or wireless standard in specific conditions
transmission lines and with a certain mobility of users

Social competence:

1. Is aware of the basic challenges faced by modern radio communication and the need for a professional approach to solving technical problems and subtracting responsibility for the technical solutions they propose
2. Is aware of the potential dangers to society in case of inappropriate use of radio technologies
3. Is aware of the rapid development of radiocommunication systems and networks and the need for constant updating your knowledge.

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	101	4,00
Classes requiring direct contact with the teacher	76	3,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	25	1,00