

Title Waves and antennas	Code 1018011610108020276
Field Electronics and Telecommunications	Year / Semester 3 / 6
Specialty -	Course core
Hours Lectures: 3 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 0
	Language polish

Lecturer:

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Status of the course in the study program:

-Waves and antennas

Assumptions and objectives of the course:

-A student taking this course will obtain knowledge about Maxwell's equations, transmission lines, parameters and types of antennas, radio wave propagation and electromagnetic compatibility, especially the harmful influence of EM fields and RF safety standards. After the course students are prepared for engineering work in the field of radio communication and for attending other obligatory or elective courses (advanced EM theory, microwave engineering, electromagnetic compatibility, radio communication systems).

Contents of the course (course description):

-Maxwell's equations, wave equation, wave propagation in various media, transmission lines, Smith chart, waveguides, parameters of antennas, different types of antennas (wire, aperture, slot, microstrip, helical, broadband), antenna applications in communication systems, antenna measurements, wave propagation in Earth's atmosphere, electromagnetic compatibility, RF safety standards

Introductory courses and the required pre-knowledge:

-circuit theory

Courses form and teaching methods:

-lecture+laboratory

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

-exam

Basic Bibliography:

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Additional Bibliography:

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