FACULTY:	Faculty of Electronics and Computer Science
FIELD OF STUDY:	Computer Science
ERASMUS COORDINATOR OF THE FACULTY:	Robert Wirski, PhD
E-MAIL ADDRESS OF THE COORDINATOR:	robert.wirski@tu.koszalin.pl
COURSE TITLE:	Signal processing
LECTURER'S NAME:	Robert Wirski
E-MAIL ADDRESS OF THE LECTURER:	robert.wirski@tu.koszalin.pl
ECTS POINTS FOR THE COURSE:	5
ACADEMIC YEAR:	
SEMESTER: (W – winter, S – summer)	W
HOURS IN SEMESTER:	45
LEVEL OF THE COURSE: (1st cycle, 2nd cycle, 3rd cycle)	1
TEACHING METHOD: (lecture, laboratory, group tutorials, seminar, other-what type?)	lecture, excersizes
LANGUAGE OF INSTRUCTION:	Polish/English
ASSESSMENT METOD: (written exam, oral exam, class test, written reports, project work, presentation, continuous assessment, other – what type?)	written/on-line exam
COURSE CONTENT:	Classification of signals and systems. Z-transform. Response of linear time-invariant systems to arbitrary inputs: the convolution sum. Causality ans stability of linear time-invariant systems. Difference equations. Block diagrams. System functions. Discrete state-space equations. Response to complex exponential and sinusoidal signals: the frequency response function. Linear-phase systems. Ideal frequency-selective filters. Paley-Wiener theorem. Fourier series. Design of finite impulse response filters using windows. Design of infinite impulse response filters from analog filters. Discrete and fast Fourier transform. Sampling theorem.
ADDITIONAL INFORMATION:	

Robert Wirski, 24.02.2021
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