Course title	Theory and Application of Fourier Series
Institute/Division	Faculty of Computer Science and Mathematics/ Department of Mathematics
Course code	F-2.FS
Erasmus subject code*	11.1
Number of contact hours**	45 lecture hours (45h)
Course duration	1 semester (Fall)
ECTS credits	6
Course description (max 100 words)	The course covers topics related to the Fourier series. The following subjects will be studied: 1. Introduction to Fourier series – basic formulas and connections: Bessel's inequality, Dirichlet's formula, convergence theorems, sine and cosine series, and complex series. 2. (C,1) summability, uniform continuity, Parseval's equality and convolution.
Literature	1. I. I. Hirschman, Infinite Series, Dover Publications Inc., New York 2014 2. K. Knopp, Theory and Applications of Infinite Series, Dover Publications Inc., New York 2016
Course type/organization	• Lectures (15h), • Computer labs (10h), • Projects (5h) • Exercises (15h)
Assessment method	Attendance, two tests during the semester, final exam
Prerequisites	Calculus, General Algebra
Primary target group	Computer Science, Mathematics, I level.
Contact person	Monika Herzog, mherzog@pk.edu.pl
Remarks	

*please insert one of the following codes:
11.0 Mathematics, Informatics
11.1 Mathematics
11.2 Statistics
11.3 Informatics, Computer Science
11.4 Artificial Intelligence
11.5 Actuarial Science
11.9 Others Mathematics, Informatics

**1 lecture hour=45 minutes