

Course title: **Stochastic Modelling**
Institute/Division: Institute of Mathematics, Faculty of Physics, Mathematics and Computer Science

Course code:

Erasmus subject code: 11.1 Mathematics

Number of contact hours: 45 hours

Course duration: 1 semester

ECTS credits: 6

Course description: The objective of this course is to introduce graduate-level math students to the intricacies of stochastic processes, point processes and time series. Main modelling issues will be: Brownian Motion, Poisson Process, Cox regression model, ARMA(p,q) model. This class requires familiarity with basic concepts of probability and statistics as taught for math students. The class will be focused on solving real problems, stemming from finance, signal processing, climatology and biology. Therefore, students will get acquainted not only with the theoretical models but also with software.

Literature:

Course type: Lectures, classes

Assessment method: Two tests during the semester, final exam

Prerequisites: basic concepts of probability and statistics as taught for math students

Primary target group: Mathematics, II level

Lecturer: Jacek Leśkow, PhD

Contact person: Jacek Leśkow , e-mail: jleskow@pk.edu.pl

Deadline for application: 15th of September

Remarks