Course title	Machine Learning in data processing and analytics
Institute/Division	Faculty of Computer Science and Telecommunication/ Department of Computer Science
Course code	F-1.ML
Erasmus subject code	11.4 Artificial Intelligence
Number of contact hours**	45 lecture hours (45h)
Course duration	1 semester (Spring)
ECTS credits	6
Course description (max 100 words)	The module introduces machine learning (ML) methods and tools for data preprocessing, processing and analytics. ML techniques include kNN, regression methods, decision trees, SVM and convolution networks. Such techniques apply to many problems in data mining and cybersecurity. Topics include detecting anomalies in data sets and monitoring and intrusion detection in computer and ICT systems.
Literature	Basic literature on the subjects of machine learning, data analysis, preprocessing and analytics
Course type/organization	• Lectures (15h), • Computer labs (15h), • Projects (15h).
Assessment method	Attendance at lectures, practical exercises at labs and passing individual projects
Prerequisites	Programming and data mining backgrounds
Primary target group	at least 2-nd year computer science students
Contact person	Joanna Kołodziej (PhD, DsC, Prof.PK)
Remarks	N/A

*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