



<b>Course title</b>	<b>Problem solving in data sciences (Master)</b>
<b>Institute/Division</b>	Faculty of Computer Science and Mathematics/ Department of Computer Science
<b>Course code</b>	F-1.PS_2
<b>Erasmus subject code*</b>	11.3
<b>Number of contact hours**</b>	45 lecture hours (45h)
<b>Course duration</b>	1 semester (Fall or Spring)
<b>ECTS credits</b>	6
<b>Course description</b> (max 100 words)	The students must define the problem related to data analysis, the concrete topic, and the scenario individually. The teacher just supervised the work. The students must find the open data repository, get the data for the analysis, and provide data pre-processing. They also should select and implement the proper data classification or clustering methods. They will work on individual projects.
<b>Literature</b>	All available materials on data pre-processing, data clustering and classification
<b>Course type/organization</b>	<ul style="list-style-type: none"><li>• Lectures (15h)</li><li>• Projects (30h)</li></ul>
<b>Assessment method</b>	Realizing all project steps and presenting the results with the prepared report..
<b>Prerequisites</b>	<ul style="list-style-type: none"><li>• Backgrounds in data mining, global optimization, artificial intelligence</li><li>• Advanced practical knowledge of Python, Java</li></ul>
<b>Primary target group</b>	Computer science students: master's degree students with good programming skills.
<b>Contact person</b>	Joanna Kołodziej (PhD, DsC, Prof.PK)
<b>Remarks</b>	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