



1.	<b>Course title</b>	Wrangling and exploratory data analysis
2.	<b>Course code</b>	СДП-3-4
3.	<b>Semester</b>	9
4.	<b>Unit offering the course</b>	Faculty of Computer Science and Engineering
5.	<b>ECTS</b>	6
6.	<b>Goals of the study programme</b>	
	<p>Wrangling data consumes roughly 50-80% of an analyst's time before any kind of analysis is possible. The course walks you through the wrangling process by exploring several factors—time, granularity, scope, and structure—that you need to consider as you begin to work with data. The students will understand what kind of data is available, Choose which data to use and at what level of detail, Meaningfully combine multiple sources of data, Decide how to distill the results to a size and shape that can drive downstream analysis. The second part of the course covers the essential exploratory techniques for summarizing data. These techniques are typically applied before formal modeling commences and can help inform the development of more complex statistical models.</p>	
7.	<b>Contents of the study programme</b>	
	<p>The wrangling process to prepare data for analysis: Discovering, Structuring, Cleaning, Enriching, Validating, Publishing. Exploratory data analysis checklist. Analytic graphs. Exploratory graphs. Basics of analytic graphics and the base plotting system. Graphics Devices. Work with colors. Hierarchical clustering, K means clustering and dimension reduction techniques. Practical R Exercises</p>	