1.	**Course title**	Big Data and Distributed Data Analytics
2.	**Course code**	СС-И-02
3.	**Semester**	9
4.	**Unit offering the course**	Faculty of Computer Science and Engineering
5.	**ECTS**	6
6.	**Goals of the study programme**	
	The aim of the course is to introduce the student to the concepts of big data, and the process of their analysis from distributed mass storage, to distributed mass processing (live during collection or after collection) and analysis of the results of data processing in order to support of decision making, business improvement and improvement of flows and processes.Competencies that the student is expected to acquire after completing the course:- to know techniques and methods for mass distributed storage of big data- to know techniques and methods for mass distributed preparation of big data for future processing- to know techniques and methods for mass and distributed processing and analysis of big data- to apply the acquired knowledge in a specific real project for storage, processing and processing and analysis of distributed and big data- to enable future architects to design distributed data management solutions,- to enable software engineers to design cloud software solutions based on distributed databases,- to present the fundamental principles and techniques to future researchers in the field, and to give them a basis for future independent research work	
7.	**Contents of the study programme**	

	Topics covered within this course:- Introduction to big data. Need and value of big data. Big data from social networks.- Big data modeling and statistical processing of big data.- Search and mining of big data.- Big data scientific applications.- Privacy, integrity and big data protection.- Introduction to distributed data processing.- Programming tools, algorithms and techniques for big data processing, such as HDFS, MapReduce, Zookeeper, HBase and others.- Design and architecture of distributed data and distributed database systems.- Processing questionnaires in a distributed environment.- Distributed control of competitive approach and concepts of possible consistency.- Managing distributed databases.- Processing questionnaires in a distributed environment- Data streaming and cloud computing- NoSQL management for big data. Graph Analytics.