

Title of Course		Big Data		
Semester		Spring		
Teaching Hours per Course:	Total	- Lectures:	- Tutorials:	
	45	15	30	
ECTS Credits		3		
The content of education				
Aims of Course	The course assumes basic knowledge and skills in the field of databases and programming (preferably in Python). The aim of the lecture is to present a general view of issues related to the processing of big data sets. The aim of the tutorials is to present the issues and specifics of processing big data sets, with references to typical technologies that are used at a given time.			
Program	Lectures: <ul style="list-style-type: none">• Big Data - concepts and terminology.• Big Data paradigms.• Processing concepts for Big Data• Storage concepts for Big Data• Big Data - data models• Message queues• Problems of Big Data adoption• Basics of working with a non-relational database Tutorials: <ul style="list-style-type: none">• Data cleaning, transforming and integrating• Processing semi-structured documents using regular expressions• Multithreaded / multitasking processing - problem formulation• Message and task queues• Disk based algorithms for Big Data			
Conditions of completion	Lectures: test with closed questions; +1 for correct answer, -1 for wrong answer, 0 for leaving question unanswered (min. -N points, max. +N points). Open-ended questions are also possible, scored depending on the level of difficulty of the question (min. 0 points, max. M points). > 86% of N+M: A > 72% of N+M: B > 58% of N+M: C > 44% of N+M: D >= 30% of N+M: E < 30% F Tutorials: E od D - complete all small project during the semester. For better mark (from C to A) complete final project. Final mark: average grades from lectures and tutorials (positive mark from A to E is required for both of them).			
Teacher	PhD. Piotr Fulmański			