

GRADUATE PROFILE

Data engineering - studies of first degree

Acquiring knowledge of the use of computational, analytical and information systems, as well as acquiring knowledge of processing and storing data are basis for the development of information society. Quick implementation of analytical and numerical algorithms, simulation of received solutions, as well as visualization and interpretation of obtained results in the form corresponding to employer's requirements are of crucial importance. *Data engineering* is an innovative field of study in Poland and meets the demands of the job market for such specialists. It is a practical field of study and fits well in the 'Digital Agenda for Europe' and in the 'Agenda for new skills and jobs' which is part of the EU's strategy Europe 2020. This unique curriculum combines knowledge of analytical methods and tools, and information techniques with their practical application in social and economic life.

The graduate is prepared for studies of second degree, where he or she can master in many fields which require knowledge of both mathematics and information technology.

Specialisation: modeling and data analysis

Practical problems that employers need to have solved require a lot of arduous computational work and analysis of large data sets. This shows that, beside essential theoretical knowledge, knowledge of specialist programs facilitating the work of data analyst is of great importance as well. A well-prepared graduate is able to choose mathematical software appropriate for the process of solving a given problem and can carry out analysis required when assessing possibilities and restrictions of such an approach. The graduate's main skill is the ability to solve problems connected with gathering and processing data available in the company's information system or in external sources, in order to perform analysis and create reports.

Specialisation: design and maintenance of analytical systems

One of the most important requirements of the current job market is knowledge of information technologies, information systems and database systems. This knowledge is a tool essential for the development of knowledge-based economy, where information is an important resource. The graduate has knowledge of available teleinformation solutions and is familiar with measures which ensure security of networks, computer systems and databases which store and give access to information. Knowledge of various information tools enables the graduate to take up tasks connected with designing and using both databases and computer systems which facilitate decision making.