



Department of Software Engineering



presents a study profile

DATABASES

A GRADUATE'S PROFILE

A graduate from the profile *Databases* is capable of designing and implementing complex systems that exploit modern database mechanisms and techniques, is familiar with processes and object-oriented software development environments and knows how to use them to build large-scale software systems.

PROFILE COURSES

<p>Database Applications</p> <p>The aim of the course is to acquaint students with object-relational mapping methods, agile approach to database design and to present advanced programming platforms in the context of development of database internet applications.</p> <p>In the practical part of the course, we create web applications in teams, using commonly used commercial frameworks and the most popular object-relational mapping engines.</p> <p>Main Lecturer: Marcin Kwiatkowski, MSc</p>	 
<p>Databases Systems Management</p> <p>This course aims at training database systems administration, including security and safety management, performance tuning and instance orchestration. Course is based on Oracle 10g database management system.</p> <p>Main Lecturer: Grzegorz Gołaszewski, PhD, Eng</p>	 
<p>Scalable Object-Oriented Systems Design</p> <p>This course focuses on software design and implementation techniques using object-oriented programming principles. It covers topics related to SOLID principles and design patterns, as well as selected elements of functional programming.</p> <p>Main Lecturer: Michał Wróbel, PhD, Eng</p>	 
<p>NoSQL Databases</p> <p>A primary course of designing and implementation of NoSQL databases, as an alternative to relational databases for the processing of large volumes of data (Big Data).</p> <p>Main Lecturer: Grzegorz Gołaszewski, PhD, Eng</p>	 

EDUCATIONAL METHODS AND TOOLS

- We pay attention to all components of competence: knowledge, skills, and social attitudes
- Each course includes hands-on project and lab exercises performed with use of modern software and hardware tools
- We introduce workshops instead of traditional teaching classes
- We teach by problems solving rather than memorizing
- We provide all necessary educational materials and aids
- We use the Moodle educational platform (<https://enauczanie.pg.edu.pl/>)

MORE INFO

- study profile supervisor: Teresa Zawadzka, PhD, Eng, room: EA 608, e-mail: teresa.zawadzka@pg.edu.pl
- <https://eti.pg.edu.pl/en/kiop-en/didactics-dse/candidates/database-study-profile>
- Information board on the 6th floor of EA, next to the staircase

