



Course title: WWW applications

ECTS credit allocation (and other scores): 4

Semester: autumn

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Engineering and technology

Language: English/Polish

Number of hours per semester: 45

Course coordinator/ Department and e-mail: Pawel Drozda, pdrozda@matman.uwm.edu.pl

Type of classes: classes and lectures

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#### Substantive content

**CLASSES:** Preparation of a web service API using any programming languages compatible with REST API. Use of an external database in the service. Implementation of a backend application based on GraphQL

**LECTURES:** Introduction to Python language, introduction to version control system, the main elements of GIT, Discussion of REST API, the most important HTTP requests, presentation of the most frequently used codes of HTTP responses, presentation of API creation (Django Rest Framework and other Python libraries are used during the lecture), discussion of API connection to frontend technologies, discussion of GraphQL

**Learning purpose:** The aim is to get skills to create backend of web application according to REST API and the second according to GraphQL

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On completion of the study programme the graduate will gain:

**Knowledge:** Have knowledge about backend, REST API and GraphQL and how it is used in web applications

**Skills:** Can implement backend with REST API and GraphQL as a part of the web application

**Social Competencies:** can work in a group, understands the need for continuous learning

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**Basic literature:** Documentatn of Django Rest Framework, Documentation of GraphQL

**Supplementary literature:** none

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The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 50

Student's independent work: 50