GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Internet Technologies in Mobile Applications, PG_00048058						
Field of study	Informatics, Biomedical Engineering, Biomedical Engineering, Biomedical Engineering						
Date of commencement of studies	February 2025		Academic year of realisation of subject	2025/2026			
Education level	second-cycle studies		Subject group	Optional subject group Specialty subject group Subject group related to scientific research in the field of study			
Mode of study	Full-time studies		Mode of delivery	at the university			
Year of study	1		Language of instruction	Polish			
Semester of study	2		ECTS credits	2.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Department of Computer Communications -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Wojciech Gumiński				
	Teachers		dr inż. Wojciech Gumiński				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours	Self-study	SUM	
	Number of study hours	30		4.0	16.0	50	
Subject objectives	The main objective of the course is to provide students with the web technologies and proper use of web technologies..						

<table>
<tr><td rowspan="7">Learning outcomes</td><td>Course outcome</td><td>Subject outcome</td><td>Method of verification</td></tr>
<tr><td>[K7_U08] while identifying and formulating engineering tasks specifications and solving these tasks, can: - apply analytical, simulation and experimental methods, - notice their systemic and non-technical aspects, - make a preliminary economic assessment of suggested solutions and engineering work</td><td>Student selects authentication mechanisms.</td><td>[SU1] Assessment of task fulfilment
[SU4] Assessment of ability to use methods and tools</td></tr>
<tr><td>[K7_W10] knows and understands, to an increased extent, the basic processes occurring in the life cycle of equipment, objects and technical systems, as well as methods of supporting processes and functions, specific to the field of study</td><td>Student lists the most popular software libraries for creating web applications.</td><td>[SW1] Assessment of factual knowledge</td></tr>
<tr><td>[K7_W04] knows and understands, to an increased extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or other elements or programmable devices specific to the field of study, and organization of work of systems using computers or such devices</td><td>Student develops implementations of internet technology mechanisms.</td><td>[SW1] Assessment of factual knowledge</td></tr>
<tr><td>[K7_W04] knows and understands, to an increased extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or other elements or programmable devices specific to the field of study, and organization of work of systems using computers or such devices</td><td>Student develops implementations of internet technology mechanisms.</td><td>[SW1] Assessment of factual knowledge</td></tr>
<tr><td>[K7_W04] knows and understands, to an increased extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or other elements or programmable devices specific to the field of study, and organization of work of systems using computers or such devices</td><td>Student develops implementations of internet technology mechanisms.</td><td>[SW1] Assessment of factual knowledge</td></tr>
<tr><td>[K7_U04] can apply knowledge of programming methods and techniques as well as select and apply appropriate programming methods and tools in computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study, making assessment and critical analysis of the prepared software as well as a synthesis and creative interpretation of information presented with it</td><td>Student selects the right internet technologies. Student applies Internet standards.</td><td>[SU4] Assessment of ability to use methods and tools
[SU1] Assessment of task fulfilment</td></tr>
<tr><td>Subject contents</td><td colspan="3">1. Standards and specifications in Internet programming. XHTML and XML. 2. Internet application - activity monitoring of servers, workstations and network hardware. 3. Concentration and dispersion of network flow: many servers one IP address - virtual HTTP servers. 4. Concentration and dispersion of network flow: one domain many IP addresses - DNS configuration. 5. Web caching proxy servers - Internet connection load control. 6. Web caching proxy servers - Internet access control. 7. Web caching - server load limiting. 8. Web switching basics. 9. Web switching - switching in layer 7. 10. User authorization with challenge response exchange. 11. Internet transactions security basics.</td></tr>
</table>

<table>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Practical exercise</td><td>50.0%</td><td>65.0%</td></tr>
<tr><td>Test</td><td>50.0%</td><td>35.0%</td></tr>
</table>
</td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Lecture notes</td></tr>
<tr><td>Supplementary literature</td><td>Coggeschall J., PHP5 Księga eksperta, Helion 2005.
w3c.org
jquery.com
getbootstrap.com
angularjs.org
w3schools.com</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Web application implementation using Bootstrap and JQuery frameworks.
Implementation of a multi-layered web application using the AngularJS frameworks.
Web service implementation.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
</table>

Document generated electronically. Does not require a seal or signature.