University of Gdańsk

Subject card

Subject name and code	Web Applications Development, PG_00178051						
Field of study	Informatics and Econometrics						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2026/2027			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study Optional 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	5.0			
Learning profile	academic		Assessment form	credit			
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Sławomir Radomski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	45.0	0.0	0.0	60
	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	60		4.0	61.0	125	
Subject objectives	1. Familiarizing students with the syntax of HTML. 2. Familiarizing students with the changes introduced in HTML 5. 3. Familiarizing students with CSS technology. 4. Familiarizing students with the RWD concept of responsive websites. 5. Familiarizing students with Flexbox and Grid. 6. Familiarizing students with Bootstrap technology 6. Practical skills in using HTML, CSS, RWD, Flexbox, Grid and Bootstrap technologies in sample projects.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[IiEL3_U02] Can select or construct econometrics, informatics or statistics tools and apply them to describe and solve economic and social problems	The student is able to select and construct IT tools and use them to describe and solve economic and social problems using HTML, CSS, RWD and Bootstrap technologies.	[SU2] presentation/project/paper/ report [SU5] implementation of a problem task
[IiEL3_U12] Can design and implement IT systems to enhance business operations and effectively utilize modern ICT technologies for management and business communication	The student is able to design and implement IT systems supporting enterprise operations using HTML, CSS, RWD, Flexbox, Grid, Bootstrap technologies in management.	[SU2] presentation/project/paper/ report [SU5] implementation of a problem task
[IiEL3_W06] Knows and understands, to an advanced degree, the processes and methods of creating, developing, and providing appropriate conditions for using informatics or statistics tools, particularly those that improve human and organizational functioning	The student has an advanced knowledge and understanding of the processes and methods of creating, developing and ensuring appropriate conditions for the use of IT tools, in particular those that improve the functioning of humans and organizations using HTML, CSS, RWD and Bootstrap technologies.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report

Subject contents

1. Introduction to HTML5: HTML basics, tags and attributes, Key principles, HTML5 document structure, HTML5 language elements.
2. Cascading Style Sheets (CSS) in web design: introduction to CSS; selectors, styling forms; comments, margins; element borders; element background images and colors; using classes, naming; absolute and relative positions.
3. Responsive Web Design (RWD) - Designing flexible websites in HTML5 and CSS3: Introduction to RWD, .container, @media; responsive navigation; introduction to flexbox; introduction to Grid.
4. Responsive websites using the Bootstrap framework: introduction to the Bootstrap framework; grid system for Bootstrap; text elements, tables, lists, buttons, forms in bootstrap; navigation, labels and alerts in bootstrap.

Prerequisites and co-requisites

Basic knowledge of how the Internet works and how tags are interpreted by web browsers, and knowledge of operating systems.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
project	51.0%	40.0%
knowledge test	51.0%	30.0%
work in class	51.0%	30.0%

Recommended reading

Basic literature	Robbins J., Projektowanie stron internetowych. Przewodnik dla początkujących webmasterów po HTML5, CSS3 i grafice, Helion 2020 Lemay L., Colburn R., Kyrnin J., HTML, CSS i JavaScript dla każdego, Helion, 2017 Hudson C., Leadbetter T., HTML5. Podręcznik programisty, Helion, 2013 Frain B., Responsive Web Design. Projektowanie elastycznych witryn w HTML5 i CSS3, Helion, 2018
Supplementary literature	Wrycza S., J. Maślankowski (red.), Informatyka Ekonomiczna, PWN, 2019
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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