University of Gdańsk

Subject card

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|---|---|---|---|
| Subject name and code | Web Applications Development, PG_00178698 | | |
| 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<br>Optional subject group<br>Subject group related to scientific research in the field of study |
| Mode of study | part-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 | 8.0 | 0.0 | 24.0 | 0.0 | 0.0 | 32 |

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 | 32 | 2.0 | 91.0 | 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.
7. 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_U12] The student 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 and use modern technologies: such as HTML, CSS, RWD, Flexbox, Grid and Bootstrap. | [SU2] presentation/project/paper/ report<br>[SU5] implementation of a problem task |
| [IiEL3_W06] To an advanced degree, the student knows and understands 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 at an advanced level knows and understands 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 people and organizations. For this purpose, he uses HTML, CSS, RWD, Flexbox, Grid and Bootstrap technologies. | [SW4] test/exam - oral or written<br>[SW2] presentation/project/paper/ report |
| [IiEL3_U02] Students 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 or construct IT tools and use them to describe and solve economic and social problems using HTML, CSS, RWD and Bootstrap. | [SU2] presentation/project/paper/ report<br>[SU5] implementation of a problem task |

<table>
<tr><td>Subject contents</td><td>1. Introduction to HTML5: HTML basics, tags and attributes, Key principles, HTML5 document structure, HTML5 language elements.<br>2. Cascading Style Sheets (CSS) in web design: introduction to CSS; selectors, styling forms; comments, margins; element borders; element images and background colors; using classes, naming; absolute and relative positions.<br>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.<br>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.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basic knowledge of how the Internet works and how tags are interpreted by web browsers, and knowledge of operating systems.</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>project</td><td>50.0%</td><td>40.0%</td></tr>
<tr><td>work in class</td><td>50.0%</td><td>30.0%</td></tr>
<tr><td>knowledge test</td><td>50.0%</td><td>30.0%</td></tr>
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</td></tr>
<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Robbins J., Projektowanie stron internetowych. Przewodnik dla początkujących webmasterów po HTML5, CSS3 i grafice, Helion 2020<br><br>Lemay L., Colburn R., Kyrnin J., HTML, CSS i JavaScript dla każdego, Helion, 2017<br><br>Hudson C., Leadbetter T., HTML5. Podręcznik programisty, Helion, 2013<br><br>Frain B., Responsive Web Design. Projektowanie elastycznych witryn w HTML5 i CSS3, Helion, 2018</td></tr>
<tr><td>Supplementary literature</td><td>Wrycza S., J. Maślankowski (red.), Informatyka Ekonomiczna, PWN, 2019</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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