



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Internet applications for mobile devices [S1Energ2>AlnUM]

Course

| | |
|--------------------------------|-------------------|
| Field of study | Year/Semester |
| Power Engineering | 2/4 |
| Area of study (specialization) | Profile of study |
| – | general academic |
| Level of study | Course offered in |
| first-cycle | Polish |
| Form of study | Requirements |
| full-time | elective |

Number of hours

| | | |
|-----------|--------------------|-------|
| Lecture | Laboratory classes | Other |
| 30 | 15 | 0 |
| Tutorials | Projects/seminars | |
| 0 | 0 | |

Number of credit points

3,00

Coordinators

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Lecturers

Prerequisites

The student starting this subject should have a basic knowledge of computer science and the basics of programming. He should have the ability to work in teams, as well as the ability to use the operating system with the development of simple algorithms.

Course objective

Acquiring practical skills related to creating web applications for mobile devices. Using the latest technologies, compliant with HTML5 and Responsive Web Design and enabling access to databases. Acquiring basic skills in the MS Visual Studio environment and Visual Studio Code.

Course-related learning outcomes

Knowledge:

1. has knowledge of the principles of creating applications for the Android environment,
2. has knowledge of creating and designing websites adapting to the browser window
3. has basic knowledge of object-oriented programming,
4. has knowledge of creating websites.

Skills:

1. has the ability to use tools for creating applications for the Android environment and websites, and is able to design and create an interactive website,
2. can program in HTML, CSS, JavaScript, C#/XAML,
3. can use network resources to acquire knowledge.

Social competences:

1. can think and act in a creative way,
2. is aware of the impact of website design on their positioning.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: - assessment of knowledge and skills demonstrated on the written test and problem. Individual tasks are assessed with varying weights, and 50% of the maximum number of points is required to pass. Activity in the classroom is also rewarded.

Laboratory exercises: - continuous evaluation, in every class. Rewarding the growth of the ability to use known principles and methods. Final test and rewarding knowledge necessary to implement the problems posed in a given area of laboratory tasks. Assessment of practical knowledge and skills related to the implementation of the project task. 50% of the maximum number of points is required to pass.

Programme content

Creating responsive web applications adapted to mobile devices

Course topics

Lecture: Basic issues regarding creating web applications for mobile devices. Presentation of tools used to create web applications, including the Visual Studio environment and Visual Studio Code. Markup language (HTML5), cascading style sheets (CSS3), scripting language (JavaScript), extensible language (XML) and responsive web design (RWD) technology using selected libraries and frameworks. Publishing your site online.

Laboratory exercises: designing interactive web applications for mobile devices in the MS Visual Studio or MS Visual Studio Code environment (HTML5, CSS3, JavaScript).

Teaching methods

Lecture: multimedia presentation, illustrated with examples on the board. The lecture is conducted in an interactive way with the formulation of questions to a group of students or to specific students indicated

Laboratory exercises: multimedia presentation illustrated with examples given on a blackboard and performance of tasks given by the teacher - practical exercises.

Bibliography

Basic:

1. Duckett J., HTML and CSS: Design and Build Websites, Helion, 2011
2. MacDonald M., HTML5: The Missing Manual, Helion, 2012
3. Bowers M., Synodinos D., Sumner V., Pro HTML5 and CSS3 Design Patterns, Helion, 2012
4. Stefanov S., Object-Oriented JavaScript, Helion, 2010
5. McFarland D. S., JavaScript & jQuery: The Missing Manual, Third Edition, Helion, 2015
6. Duckett J., JavaScript and JQuery: Interactive Front-End Web Development, Helion, 2015

Additional:

1. Comer D. Sieci komputerowe i intersieci, WNT
2. Griffith, C. (2017). Mobile App Development with Ionic, Revised Edition: Cross-Platform Apps with Ionic, Angular, and Cordova. " O'Reilly Media, Inc."
3. McFarland D. S., CSS3: The Missing Manual, 3rd edition, Helion, 2013
4. Internet

Breakdown of average student's workload

| | Hours | ECTS |
|---|-------|------|
| Total workload | 75 | 3,00 |
| Classes requiring direct contact with the teacher | 45 | 2,00 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 30 | 1,00 |