COURSE DESCRIPTION CARD - SYLLABUS

Course name

ES in the field: Information technology and communication systems in the energy sector - Internet applications for mobile devices

Course

Field of study

Power Engineering

Year/Semester

2/4

Area of study (specialization)

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

30

Laboratory classes

30

Other (e.g. online)

Tutorials

Projects/seminars

Number of credit points

4

Lecturers

Responsible for the course/lecturer:

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Responsible for the course/lecturer:

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 applications for the Android environment. Using the latest technologies, compatible with HTML5 and Responsive Web Design and enabling access to databases. Acquiring basic skills regarding MS Visual Studio 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

Lecture: -Basic issues related to creating applications for the Android environment and websites. Ability to use the Visual Studio environment. Markup language (HTML), cascading style sheets (CSS), extensible XML languages. Combination of HTML and CSS technologies. Java Script language. Connecting web pages to XML and Java Script documents. Creating websites in responsive web design technology. Publish your site on the web. Creating applications for Android (JavaScripr, C#/XAML).

Laboratory exercises: -designing interactive websites in the MS Visual Studio environment (HTML5, CSS, JavaScript, XML). Application development for android.

Teaching methods

Lecture: multimedia presentation, illustrated with examples on the board. The lecture in 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	120	4,0
Classes requiring direct contact with the teacher	80	3,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	40	1,0

[1] delete or add other activities as appropriate