



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Internet technologies with data archiving [N1Energ2>TlzAD]

Course

Field of study Power Engineering	Year/Semester 2/3
Area of study (specialization) –	Profile of study general academic
Level of study first-cycle	Course offered in Polish
Form of study part-time	Requirements elective

Number of hours

Lecture 20	Laboratory classes 10	Other (e.g. online) 0
Tutorials 0	Projects/seminars 0	

Number of credit points

0,00

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 interactive websites, using the latest technologies, compatible with Responsive Web Design and enabling access to databases. Acquiring basic skills related to MS Visual Studio and Management Studio. Acquiring the ability to apply the knowledge learned to create pages or applications for the Android environment.

Course-related learning outcomes

Knowledge:

1. has knowledge of the principles of creating interactive websites,
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 the creation and implementation of databases.

Skills:

1. has the ability to use tools for creating websites, and is able to design and create an interactive website,
2. can program in HTML, CSS, JavaScript, SQL, SQLite,
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 websites and databases.

Course topics

Lecture: Basic issues regarding creating websites and applications for creating websites with databases. Presentation of tools used to create websites and create databases, including an overview of MS Visual Studio, Visual Studio Code and SQL Server Management Studio. Topics covered include markup language (HTML5), cascading style sheets (CSS3), extensible language (XML), scripting language (JavaScript) and structured language (SQL). Combination of HTML5 and CSS3 technologies. Connecting websites with XML and JavaScript documents. Creating websites using responsive web design (RWD) technology. Creating databases in SQL. Publishing your site online.

Laboratory exercises: designing interactive websites in MS Visual Studio or MS Visual Studio Code (HTML5, CSS, JavaScript, XML) and designing databases in SQL Server Management Studio (SQL).

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. Comer D. ;Sieci komputerowe TCP/IP;, WNT
3. McFarland D. S., CSS3: The Missing Manual, 3rd edition, Helion, 2013

4. Internet

Breakdown of average student's workload

	Hours	ECTS
Total workload	80	3,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	50	2,00