



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technologies in Internet

Course

Field of study

Electrical Engineering

Area of study (specialization)

Electric and Computer Systems in Industry and Vehicles

Level of study

Second-cycle studies

Form of study

part-time

Year/Semester

2/4

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

10

Number of credit points

1

Lecturers

Responsible for the course/lecturer:

dr inż. Michał Filipiak

Responsible for the course/lecturer:

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Prerequisites

The student starting this subject should have basic knowledge of computer science, building static websites and programming in high-level languages. He should also be able to obtain information from specified sources.

Course objective

Introduction to the technology of building dynamic websites operating on the server side (ASP.NET).

Acquiring practical skills related to creating modern websites cooperating with relational databases.

Implementation of the sample project of a website containing a relational database (MS SQL Server).

Course-related learning outcomes

Knowledge



1. Has knowledge of the possibilities of using object-oriented programming to build a website with database elements.

Skills

1. Is able to obtain from literature and the Internet in-depth information on IT issues, in particular those related to the design of internet applications.

2. Is able to creatively work individually and in team to achieve the desired effect.

Social competences

1. Is aware of the need to use IT tools in the work of an engineer and develops in using them.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge and skills acquired during classes are assessed based on the implementation of an IT project (website design made in ASP.NET technology cooperating with a relational database). Activity classes are favored in attempting to solve the problems posed.

Programme content

Characteristics of the .NET Framework platform and MS Visual Studio environment. The use of built-in controls supporting the central management of the logical structure of the site and controlling access to the site. The use of master pages and AJAX (Asynchronous JavaScript and XML) technology. Building websites with access to relational databases (MS SQL Server, SQL and Transact-SQL). Software for websites created in ASP.NET using the C # language.

Teaching methods

Multimedia presentation illustrated with examples displayed on the screen. Performing tasks given by the teacher - practical exercises.

Bibliography

Basic

1. Matulewski J., Grabek M., Pakulski M., Borycki D.: ASP.NET Web Forms. Kompletny przewodnik dla programistów interaktywnych aplikacji internetowych w Visual Studio. Helion 2014.

2. Liberty J., Maharry D., Hurwitz D.: ASP.NET 3.5. Programowanie, Helion, Gliwice 2010.

3. Wrzesień M.: Aplikacje internetowe w ASP .NET, Wyższa Szkoła Informatyki i Zarządzania, Rzeszów, 2012.

4. Jajczyk J., Medycki M.: Personalizacja witryn internetowych z wykorzystaniem architektury WebParts, ZKwE, 2009, s. 419-420.

Additional

1. Schafer S. M.: HTML, XHTML i CSS. Biblia, Helion, Gliwice 2012.



2. Duckett J., HTML i CSS: zaprojektuj i zbuduj witrynę WWW, Helion, 2014
3. Balter A., T-SQL dla każdego, Helion, 2016.
4. Evjen B., Hanselman S., Rader D.: ASP.NET 4 z wykorzystaniem C# i VB. Zaawansowane programowanie. Helion 2016.
5. Jajczyk J., Kasprzyk L., Matuszak K.: Zastosowanie technologii ASP do wspomagania procesu dydaktycznego, ZKwE, 2003, s. 691-694.

Breakdown of average student's workload

| | Hours | ECTS |
|--|-------|------|
| Total workload | 38 | 1,0 |
| Classes requiring direct contact with the teacher | 16 | 1,0 |
| Student's own work (literature studies, preparation for project classes, project preparation) ¹ | 22 | 1,0 |

¹ delete or add other activities as appropriate