STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Technologies in Internet**		Code **1010325341010321878**
Field of study **Electrical Engineering**	Profile of study (general academic, practical) **general academic**	Year /Semester **2 / 4**
Elective path/specialty **Electrical and Computer Systems in**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**
Cycle of study: **Second-cycle studies**	Form of study (full-time,part-time) **part-time**	
No. of hours Lecture: **-** Classes: **-** Laboratory: **-** Project/seminars: **9**		No. of credits **1**
Status of the course in the study program (Basic, major, other) **other**	(university-wide, from another field) **university-wide**	
Education areas and fields of science and art **technical sciences** **Technical sciences**		ECTS distribution (number and %) **1 100%** **1 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Basic knowledge of computer science, construction of static web pages and programming in high level languages.
2	**Skills**	Support browsers. The use of communication protocols. Algorithmic thinking. Collaboration in a team (group of laboratory).
3	**Social competencies**	Recognizes the importance of working tools in electrical engineering, the ability to expand their competences.

Assumptions and objectives of the course:

Familiar with the technology of construction of dynamic web sites running on the server side (ASP.NET). Practical skills related to the creation of modern websites work with relational databases. Sample Implementation of the project web page containing a relational database (MS SQL Server).

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Choose appropriate technologies to the set of functional features website - [K_W07++]

Skills:

1. Obtain from the literature and the internet-depth information on IT issues, particularly related to the design of websites - [K_U01++]
2. Creative work individually and collectively to achieve the desired effect - [K_U02+]

Social competencies:

1. Awareness of the need to use tools in the engineer - [K_K02++]

Assessment methods of study outcomes

Class project:

- assess the knowledge and skills related to the implementation of an IT project (project website made in ASP.NET technology and works with relational database),
- checking and rewarding knowledge and skills for the implementation issues of problem (homework).

Get extra points for the activity in the classroom, and in particular for:

- activity classes in any attempt solutions to problems,
- ability to work as a team.

Course description

Characteristics. NET Framework and Visual Studio. Using the built-in controls support centralized management of the logical structure of the site and control access to the site. The use of master pages and AJAX (Asynchronous JavaScript and XML). Building websites with access to relational databases (MS SQL Server, SQL and Transact-SQL). Software created pages in ASP.NET using C#.

Update 2017:

MS Visual Studio, HTML5, CSS4.

Applied methods of education:

Project - analysis and discussion of various solutions to the problem, multimedia demonstration, teamwork.

Basic bibliography:

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 bibliography:

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.

Result of average student's workload

Activity	Time (working hours)
1. participation in project activities	9
2. part in the consultation	6
3. project preparation activities	4
4. homework preparation	6
5. implementation of project tasks	14

Student's workload

Source of workload	hours	ECTS
Total workload	39	1
Contact hours	15	1
Practical activities	39	1