



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Web technologies [S1EiT1>TWww]

Course

Field of study

Electronics and Telecommunications

Year/Semester

3/6

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

elective

Number of hours

Lecture

15

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

15

Number of credit points

3,00

Coordinators

dr inż. Robert Kotrys

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Lecturers

Prerequisites

A student starting this subject should have basic knowledge and skills in programming in high-level languages. He should also have the ability to obtain information from the indicated sources and be ready to cooperate within the framework team.

Course objective

none

Course-related learning outcomes

none

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

none

Programme content

The module program covers the following topics

1. Structure, queries, cooperation with the HTTP server.
2. Protocols and standards for information exchange on the Internet
3. HTML5 information description languages,
4. Rules for creating Internet applications.
5. PHP language
6. Methods and languages for creating interactive websites, JavaScript.
7. Methods of ensuring the security of data and Internet transactions.
8. Elements of web application architecture

Course topics

Classes within the module are conducted in the form of a lecture and a project.

Lecture

1. Structure, queries, cooperation with the HTTP server.
2. Protocols and standards for information exchange on the Internet.
3. HTML5 information description languages, DOM model.
4. Principles of operation and creation of Internet applications. Types of applications. Application architecture.
5. PHP language, code execution environment, procedural programming, object-oriented programming, programming interfaces.
6. Methods and languages for creating interactive websites, JavaScript. JS applications, front-end, back-end, application development.
7. Methods of ensuring the security of data and Internet transactions.
8. Elements of web application architecture.

Design

During design classes, two projects are implemented in the form of an online application.

1. The first project concerns a simple Internet application for collecting, storing and sharing data, the aim of which is to provide practical knowledge of PHP, HTML5, and basic issues related to the creation and operation of a Internet application. The project is carried out independently in the laboratory, and, additionally, remote work is possible via the course's available website. The time to complete the first project is approximately 1/3 of the class time.
2. The final project, expected to take approximately 2/3 of the class time, is a web application using a popular design template. The use of a design template allows for practical knowledge of the structure of the application architecture, methods of storing data, methods of ensuring the security of the application and stored data, methods of interacting with the user, and the principles of proper styling of websites.

Teaching methods

Lecture: multimedia presentation prepared by the teacher, illustrated with examples given on the board. The lecture is conducted mainly in a traditional way, but also partly in a traditional way in the form of a conversational and/or problem-based lecture

2. Design classes: carrying out design tasks given by the teacher. Tasks are performed individually and concern the preparation of software for Internet applications. The project consists of sequentially performed tasks. Laboratories can be completed via multimedia presentations or examples given on the board.

Bibliography

none

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	44	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	31	1,00