# POZNARO POZNAR

#### POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Internet technologies and services [S2IZarz1>TiUI]

Course

Field of study Year/Semester

Engineering Management 2/3

Area of study (specialization) Profile of study

Managing Enterprise of the Future general academic

Level of study Course offered in

second-cycle Polish

Form of study Requirements

full-time elective

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

15 0

Tutorials Projects/seminars

15 0

Number of credit points

2,00

Coordinators Lecturers

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## **Prerequisites**

Knowledge and skills in computer science subjects of 1st degree studies. Awareness of the need to constantly update and expand their knowledge and skills.

# Course objective

Students should understand the way the Internet works and the modern concept of network services to the extent that it enables informed selection and use of available technologies. Deepening knowledge of issues of technology and internet services.

# Course-related learning outcomes

#### Knowledge:

The student describes how Internet technologies, including multi-tiered applications and web services, affect business operations [P7S\_WG\_06].

The student explains methods of data acquisition and analysis on the Internet, including the use of XML and XSLT in electronic document exchange [P7S WG 07].

The student defines ethical standards related to the use of Internet technologies, including aspects of privacy and data security [P7S\_WK\_01].

The student characterizes the principles of intellectual property and copyright protection in the context of web content and application development [P7S WK 02].

#### Skills:

The student analyzes and evaluates the effectiveness of Internet technologies, including static and dynamic Web pages and multilayer applications [P7S\_UW\_03].

The student analyzes the social and cultural aspects of the use of Internet technologies, including the impact of cryptography on network security [P7S UW 05].

The student interprets and explains the relationship between Internet technologies and various social, cultural and economic aspects [P7S\_UW\_06].

The student applies legal principles and standards in the design of web applications, including data validation and report generation [P7S\_UW\_08].

#### Social competences:

The student perceives and manages cause-and-effect relationships in the implementation and use of Internet technologies in various business scenarios [P7S KK 02].

The student is prepared to initiate and conduct projects related to Internet technologies, with a particular focus on the development and implementation of innovative Internet services [P7S\_KO\_02].

# Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The lecture grade is based on two colloquium. Questions and tasks checking understanding of the issues. Passing threshold - 50%.

Exercise grade is the average of individual tasks performed during classes. The assessment takes into account the correctness and completeness of the results obtained. Passing threshold - 50%.

# Programme content

Lecture: Static and dynamic web site technologies with various scripting languages. Multilayer applications. The role of XML and XSLT in electronic document exchange. The concept of network service and associated protocols. Cryptographic foundations of network security.

Exercise: Design of a simple application based on examples of forms in HTML and scripts cooperating with them on the browser and server side. PHP scripts saving data to oak databases, data validation rules and creating simple reports.

# Course topics

none

#### **Teaching methods**

Lectures: informative lecture, problem lecture, seminar lecture, case method. Classes: laboratory (experiment) method, workshop method, project method.

## **Bibliography**

#### Basic:

- 1. Włodarczak Z., Technologie i usługi internetowe; PHP, Wydawnictwo Politechniki Poznańskiej, Poznań 2013
- 2. Borucki A., Włodarczak Z., Techniki opracowywania stron WWW, Wydawnictwo Politechniki Poznańskiej, Poznań 2013
- 3. Hankiewicz K, Lasota A.M., Cechy determinujące jakość użytkową serwisu internetowego przeznaczonego dla klientów transportu publicznegoLogistyka 2015, nr 3, p. 5670-5673.

#### Additional:

- 1. Bendoraitis A., Aplikacje internetowe z Django. Najlepsze receptury, Helion, 2015
- 2. Duckett J., JavaScript i jQuery. Interaktywne strony WWW dla każdego, Helion, Gliwice 2015
- 3. Duckett J., HTML i CSS. Zaprojektuj i zbuduj witrynę WWW. Podręcznik Front End Developera, Helion, Gliwice 2014
- 4. Hankiewicz K., Prussak W., Jakość użytkowa internetowego serwisu biznesowego studium

przypadku, Zeszyty Naukowe. Ekonomiczne Problemy Usług / Uniwersytet Szczeciński. - 2011, nr 68 (651), s. 39-47

- 5. Lis M., PHP7. Praktyczny kurs, Helion, Gliwice 2017
  6. Mitchell L. J., API nowoczesnej strony WWW. Usługi sieciowe w PHP, Helion, 2015

# Breakdown of average student's workload

	Hours	ECTS
Total workload	55	2,00
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)	25	1,00