POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Organization of commercial services on the Internet

Course

Field of study	Year/Semester
Computer Science	1/2
Area of study (specialization)	Profile of study
Advanced Internet Technologies	general academic
Level of study	Course offered in
Second-cycle studies	
Form of study	Requirements
part-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
16	16	0
Tutorials	Projects/seminars	
0	0	

Number of credit points

5

Lecturers

Responsible for the course/lecturer:

Dr. Eng. Andrzej Urbański

Responsible for the course/lecturer:

Prerequisites

Learning outcomes from first-cycle studies defined in the Resolution of the Senate of the PP, in particular the effects K_W1-2, K_W4, K_W6-15, K_U1-2, K_U4, K_U7-8, K_U14-20, K_U22-23, K_U26, K_K1-9, verified in the recruitment process for second-cycle studies - these effects are presented on the faculty website www.fc.put.poznan.pl.

In terms of knowledge, the student should have basic knowledge of programming, techniques and technologies used in the construction of Internet applications, computer networks and databases.

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The student should also have skills in solving basic problems in the field of algorithmics, program code optimization, working with external libraries, building simple websites. It would be advisable to want and strive to expand your knowledge and competences.

In addition, in terms of social competences, the student must present attitudes such as honesty, responsibility, perseverance, cognitive curiosity, creativity, personal culture, respect for other people.

Course objective

1. Provide students with basic knowledge on technologies used in the construction of e-commerce systems, in terms of approaches to design, technology selection and implementation (including solutions for mobile devices).

2. Developing students' skills in solving problems related to designing e-commerce web applications, using frameworks, libraries and other tools supporting the construction of websites related to commercial activities on the Internet.

3. Shaping students' teamwork skills and independence in solving problems

Course-related learning outcomes

Knowledge

As a result of the conducted classes, the student:

1. has a structured, theoretically founded general knowledge in the field of network technologies and Internet applications

2. has a theoretically founded detailed knowledge related to selected issues in the field of computer science, such as: object-oriented programming, MVC, designing e-commerce web applications, designing databases for web applications

3. has knowledge about development trends and the most important new achievements in computer science and in selected related scientific disciplines - technologies used to build internet and mobile applications.

4. has basic knowledge about the life cycle of e-commerce IT systems, in particular technologies used in the Internet, ie HTML, CSS, JavaScipt, PHP.

5. knows the basic methods, techniques and tools used to solve complex engineering tasks in the field of e-commerce systems.

Skills

As a result of the conducted classes, the student should demonstrate the following skills (the student will be able to):

1.can obtain information from literature, databases and other sources (in the mother tongue and in English), integrate them, interpret and critically evaluate them, draw conclusions and formulate and exhaustively justify opinions, in particular use various types of technical documentation and API tools used during laboratories;

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2. is able to determine the directions of further learning and implement the process of self-education.

3. can use analytical, simulation and experimental methods to formulate and solve engineering tasks and simple research problems (such as: estimating the number of visits to the website, estimating the server load with sql queries, evaluating website optimization, etc.)); is able to use the above-mentioned methods to correctly design and implement efficient mechanisms used in the built web applications;

4. can - when formulating and solving engineering tasks - integrate knowledge from various areas of computer science (and, if necessary, also knowledge from other scientific disciplines) and apply a systemic approach, also taking into account non-technical aspects.

5. is able to formulate and test hypotheses related to engineering problems and simple research problems related to the issues discussed during classes

6. can assess the usefulness and the possibility of using new achievements (methods and tools) and new IT products.

Social competences

As a result of the course, the student will acquire the competences listed below. Completing the course means that the student:

1. understands that in computer science knowledge and skills very quickly become obsolete.

2. knows examples and understands the causes of malfunctioning IT systems, which have led to serious financial, image or social losses.

3. is able to properly define the priorities for the implementation of the tasks set by himself or others.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

a) in the field of lectures:

based on answers to questions about the material discussed in previous lectures,

b) in the field of laboratories / exercises:

based on the assessment of the current progress in the implementation of tasks,

Summative assessment:

a) in the field of lectures, verification of the assumed learning outcomes is carried out by:

assessment of the knowledge and skills demonstrated during the problem-based written exam (5 questions, 5 points each), completion from 60% + 1)

discussion of the exam results,

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b) in the field of laboratories / exercises, verification of the assumed learning outcomes is carried out by:

evaluation and "defense" by the student of the report on the implementation of the project,

Obtaining additional points for activity during classes, especially for:

discuss additional aspects of the issue,

the effectiveness of applying the acquired knowledge while solving a given problem,

comments related to the improvement of teaching materials,

identifying students' perceptual difficulties enabling ongoing improvement of the teaching process.

Programme content

The lecture program covers the following topics:

How to make money on the Internet ?. Risks and threats. Legal aspects of conducting commercial activity on the Internet. Conducting e-commerce activity from the point of view of the manager of standard stores. Designing commercial activities on the Internet on the example of an online store. Ways to encourage customers to spend more. Ways to reduce the costs of order processing. Other forms of conducting commercial activity on the Internet (auctions, price comparison websites, advertising portals, etc.). Electronic payments.

Laboratory classes are conducted independently by students or by 2-person teams of students. The laboratory program covers the following topics:

Using existing e-commerce systems to quickly launch an online store foundation (stub) (on the example of PrestaShop). Building a product catalog, shopping cart implementation and electronic payment service. Order handling. Building additional components and functionalities increasing the usability, and thus the income of commercial activities - an online store

Some of the above-mentioned program content is carried out as part of the student's own work.

Teaching methods

lecture: multimedia presentation, presentation illustrated with examples given on the board, solving problems, multimedia show, demonstration.

laboratory exercises: practical exercises, discussion, team work, multimedia show, case studies, demonstration.

Bibliography

Basic

1.   Larry Ullman "E-commerce. Genialnie proste tworzenie serwisów w PHP i MySQL", Helion, 2011

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Additional

1.   Agile Web Application Development with Yii 1.1 and PHP5, Jeffrey Winesett, Packt Publishing, Birmingham, 2010

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	
Classes requiring direct contact with the teacher	48	
participation in lectures 8 x 2 hours	16	
participation in laboratory classes / exercises: 8 x 2 hours	16	
preparation for laboratory exercises: 8 x 2 hours	16	
participation in consultations (may be carried out electronically) related to the implementation of the education process, in particular laboratory exercises / project 18	18	
writing a program / programs, starting and verification (time outside the laboratory) 20	20	
getting acquainted with the indicated literature / teaching materials (10 pages of scientific text = 1 hour), 200 pages 20	20	
preparation for passing lectures and participation in the final exam 18 hours + 2 hours	10	
discussion of the results of the exam 1p [1]	1	

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[1] delete or add other activities as appropriate