STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Internet Business Service Organization**		Code **1010515321010510952**

Field of study **Computing**	Profile of study (general academic, practical) **general academic**	Year /Semester **1 / 2**

Elective path/specialty **Advanced Internet Technologies**	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: **16** Classes: **-** Laboratory: **18** Project/seminars: **-**	No. of credits **5**

Status of the course in the study program (Basic, major, other) **major**	(university-wide, from another field) **from field**

Education areas and fields of science and art **technical sciences** **Technical sciences**	ECTS distribution (number and %) **5 100%** **5 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Learning objectives of the first cycle studies defined in the resolution of the PUT Academic Senate, especially 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 that are verified in the admission process to the second cycle studies ? the learning objectives are available on the website of the faculty www.fc.put.poznan.pl
		A student who commences participation in this module should already have basic knowledge regarding programming, technologies useful in creating internet applications as well as computer networks and databases.
2	**Skills**	Student should additionally have skills to solve basic algorithmic problems, code optimization, work with external libraries, building simple web pages.
		Student should understand the need to extend his/her competences and to work in a team.
3	**Social competencies**	In addition, in respect to the social skills the student should show attitudes of honesty, responsibility, perseverance, curiosity, creativity, manners, and respect for other people.

Assumptions and objectives of the course:

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

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

3. Shaping the skills of team work as well as independence in solving problems.

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

Knowledge:

1. has ordered, theoretically founded general knowledge in the field of network technologies and internet applications - [K2st_W4 ++]

2. has a theoretically well-structured knowledge related to selected issues in the field of computer science, such as: object-oriented programming, MVC, designing internet applications related to e-commerce, designing databases for web applications - [K2st_W5 ++]

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. - [K2st_W6 ++]

4. has a basic knowledge of the life cycle of e-commerce information systems, in particular technologies used in the Internet, i.e. HTML, CSS, JavaScipt, PHP. - [K2st_W7 ++]

5. knows the basic methods, techniques and tools used to solve complex engineering tasks in the field of e-commerce systems. - [K2st_W8 ++]

Skills:

1. is able to obtain information from literature, databases and other sources (in native and English language), integrate them, make their interpretation and critical evaluation, draw conclusions and formulate and fully justify opinions, in particular use various types of technical documentation and API tools used during laboratories; - [K2st_U1 ++]

2. can determine the directions of further learning and realize the process of self-education. - [K2st_U5]

3. can use these methods to properly design and implement efficient mechanisms used in built web applications; - [K2st_U9]

4. is able to integrate knowledge from various areas of computer science (and, if necessary, knowledge from other scientific disciplines) in the formulation and solving of engineering tasks, and apply a system approach that also takes into account non-technical aspects. - [K2st_U10]

5. is able to formulate and test hypotheses related to engineering problems and simple research problems related to issues discussed in classes - [K2st_U12 ++]

6. is able to assess the suitability and the possibility of using new achievements (methods and tools) and new IT products. - [K2st_U13 ++]

Social competencies:

1. understands that in IT, knowledge and skills quickly become obsolete. - [K2st_K1 ++]

2. knows examples and understands the reasons for malfunctioning IT systems that led to serious financial, image or social losses. - [K2st_K4 +]

3. is able to properly define the priorities for the implementation of the task set by himself or others. - [K2st_K6]

Assessment methods of study outcomes

Forming rating:

a) in the field of lectures:

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

b) in the field of laboratories / exercises:

based on an assessment of the current progress of task implementation,

Summary rating:

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

assessment of knowledge and skills demonstrated on the written exam of a problem nature (5 questions 5 points each) passing grade from 60% + 1)

discussion of the results of the exam,

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

assessment and defense of the report on project implementation by the student,

Obtaining additional points for activity during classes, and especially for:

discuss additional aspects of the issue,

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

comments related to the improvement of didactic materials,

indicating the perceptual difficulties of students enabling ongoing improvement of the didactic process.

Course description

The lecture program includes the following topics:

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

Laboratory classes are carried out independently by students or by 2-person student teams. The laboratory program includes the following topics:

The use of existing e-commerce systems to quickly launch the base (stub) of an online store (on the example of PrestaShop). Construction of a product catalog, basket implementation and electronic payment service. Order handling. Construction of additional components and functionalities that increase usability, and thus the revenues of the commercial operation of the

online store.

Some of the above-mentioned program contents are implemented as part of the student's own work.

Teaching methods:

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

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

Basic bibliography:

1. Larry Ullman "E-commerce. Genialnie proste tworzenie serwisów w PHP i MySQL", Helion, 2015

Additional bibliography:

1. Agile Web Application Development with Yii 1.1 and PHP5, Jeffrey Winesett, Packt Publishing, Birmingham, 2016

Result of average student's workload

Activity	Time (working hours)
1. participation in lectures	16
2. participation in laboratory classes / exercises: 9 x 2 hours,	19
3. preparation for laboratory exercises: 8 x 2 hours,	16
4. participation in consultations (can be carried out electronically) related to the implementation of the education process, in particular laboratory exercises / project	4
5. program / program writing, commissioning and verification (time outside laboratory classes)	29
6. familiarization with the indicated literature / didactic materials (10 pages of scientific text = 1 hour), 200 pages	20
7. preparation for passing the lectures and participation in the final exam (18 hours + 2 hours)	20
8. discussion of the results of the exam	1

Student's workload

Source of workload	hours	ECTS
Total workload	125	5
Contact hours	36	1
Practical activities	66	2