

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Internet Technologies and Services		Code 1011102211011165283
Field of study Engineering Management - Full-time studies -	Profile of study (general academic, practical) (brak)	Year /Semester 1 / 1
Elective path/specialty Quality Systems and Ergonomics	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: Second-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: 15 Laboratory: - Project/seminars: -		No. of credits 2
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art social sciences		ECTS distribution (number and %) 2 100%
Responsible for subject / lecturer: dr Ryszard Danecki email: Ryszard.Danecki@put.poznan.pl tel. (+4861)6653388 Faculty of Engineering Management Strzelecka Str. 11, 60-965 Poznań		Responsible for subject / lecturer: dr inż. Zbigniew Włodarczak email: Zbigniew.Wlodarczak@put.poznan.pl tel. (+4861) 665 33 87 Faculty of Engineering Management Strzelecka Str. 11, 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	First cycle study courses on computer science and information technology. Preferably this should include preliminary knowledge of HTML documents, programming language assignment and control instructions, being familiar with relational data bases.
2	Skills	Preferably: ability to prepare simple HTML documents, understand simple programs in structural programming language.
3	Social competencies	Interests in technologies that underlay everyday operation of network devices.
Assumptions and objectives of the course: -The purpose of this course is twofold: to give students knowledge of core Internet technologies and to introduce them to the concept of net services, from the early stages of client server programming to modern Web services paradigm. This may be regarded both as a self contained course or as a supporting or accompanying material to more applicative courses on E-business, Web page and Web applications design. The level of laboratory exercises vary depending on students experience and first cycle study curriculum.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. The students should know the Internet protocol stack architecture and understand the idea behind its layers. - [K2A_W08]		
2. They should be able to characterize main Web design technologies and discuss their advantages and drawbacks. - [K2A_W09]		
3. Students should describe the concepts of Web services and semantic Internet. - [K2A_W08]		
4. Students should know basic cryptographic concepts and understand their role in the computer security technologies. - [K2A_W17]		
Skills:		
1. Student should be able to configure their network environment and to manage several type of connections between computer devices. - [K2A_U06]		
2. They should diagnose and correct typical errors that appear while updating Websites on a server. - [K2A_U06]		
3. They should specify interfaces between layers of Web applications. - [K2A_U06]		
Social competencies:		
1. Students should be aware of responsible use of the Internet applications and resources. - [K2A_K05 K2A_K06]		

Assessment methods of study outcomes		
<p>-Practical tests in laboratories. Oral presentations on key topics.</p> <p>Forming rating: a) in the field of exercises: on the basis of an assessment of the current progress of task implementation b) in the field of lectures: based on answers to questions about the material discussed in previous lectures,</p> <p>Summary rating: a) in the scope of exercises on the basis of: (1) public presentation of the project tasks indicated by the teacher (2) b) in the area of lectures: colloquium</p>		
Course description		
<p>-Lectures: The challenges of internetworking. TCP/IP protocol stack. The evolution of Web pages and Web applications. The Internet standards for Web design. XML and Web ontology. The concept of web services and supporting protocols. The cryptographical basis for network security.</p> <p>-Laboratories: Depending on students experience laboratory exercises provide more or less advanced illustrative material to lecture subjects. The main focus is on understanding web applications structure and operation.</p> <p>Program methods: - Information lecture - Conversational lecture - Works with a book - Demonstration method</p>		
<p>Basic bibliography: 1. James F. Kurose, Keith W. Ross Computer Networking: A Top-Down Approach, Fifth Edition Pearson Education Inc., 2. Luke Welling, Laura Thomson, PHP and MySQL Web Development (4th Edition) Sams Corporation 3. The Internet resources on Internet standards. The IBM and Microsoft documents on web services</p>		
<p>Additional bibliography: 1. Kevin R. Fall, W. Richard Stevens, TCP/IP Illustrated, Volume 1: The Protocols (2nd Edition) 2. Eric A. Meyer Meyer on CSS. Mastering the language of Web Design Pearson Education Inc., New Riders Publishing 2003</p>		
Result of average student's workload		
Activity	Time (working hours)	
1. Participation in lectures	15	
2. Participation in classes	15	
3. Preparation for classes	10	
4. Consultation	10	
5. Preparation for test	6	
6. Test	4	
Student's workload		
Source of workload	hours	ECTS
Total workload	60	2
Contact hours	44	1
Practical activities	15	1