

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Software engineering		Code 1010334551010330109
Field of study Information Engineering	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 5
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: 12 Classes: - Laboratory: 8 Project/seminars: -		No. of credits 3
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 technical sciences		ECTS distribution (number and %) 3 100%
Responsible for subject / lecturer: Ph.D. Eng. Adam Meissner email: Adam.Meissner@put.poznan.pl tel. 61 665 37 24 Faculty of Electrical Engineering ul. Piotrowo 3A 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Student has theoretical and practical knowledge concerning design and implementation of algorithms and also methods and paradigms of programming. Moreover, he/she has a basis of program verification.
2	Skills	Student is able to find information from professional literature, databases and other sources; he/she can also integrate and correctly interpret the gained information and then to conclude and formulate his/her own opinions; a student is able to work individually and in a team; he/she can estimate a time for a given task and prepare a schedule for it.
3	Social competencies	Student understands the necessity and knows possibilities of lifelong learning and improving the professional, personal and social competencies; a student realises the responsibility for his/her work done individually or in a team; he/she is also ready to accept the rules of group work.
Assumptions and objectives of the course: Providing students with a basis of software design and engineering; presenting selected methods and tools applied in this domain.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Student has a theoretical and practical knowledge on software engineering - [K_W12] 2. Student is knowledgeable with the state of art and modern trends in software engineering and computing - [K_W19]		
Skills:		
1. Student is able to create engineer work documentation and to prepare text with the work result discussion - [K_U3] 2. Student is able to formulate requirements, to build an object model, and assess a simple information system, its functions, and components - [K_U16]		
Social competencies:		
1. Student has a broad awareness of an importance of non-technical aspects and then consequences of software engineer - [K_K02] 2. Student understands the importance of a thorough design of a given project, respecting notation standards, using a proper language and keeping deadlines - [K_K07]		
Assessment methods of study outcomes		

Lectures: written test.		
Labs: rating a student's activity during exercises; evaluation of the progress on the semestral task consisting in preparing a partial model (in a UML standard) of a given software system.		
Course description		
Lectures. Field of software engineering. A basis of software modeling. Software requirements document. UML standard and its application to software system modeling.		
Labs. Familiarizing students with selected tools for software modeling in a UML standard. Developing a partial model of a given software system consisting of a requirements document and also use case diagram and class diagrams in UML standard.		
Basic bibliography:		
1. Booch G., Jacobson I., Rumbaugh J., The Unified Modeling Language User's Guide, Addison-Wesley, Boston		
Additional bibliography:		
1. Pressman R., Software engineering: A Practitioner's Approach, McGraw-Hill Co. Inc., 2004		
2. Unified Modeling Language. Object Management Group, http://www.omg.org/spec/UML (access: 15.09.2016)		
Result of average student's workload		
Activity	Time (working hours)	
1. Lectures	12	
2. Labs	8	
3. Preparation for labs, preparing the reports	20	
4. Preparation for tests	10	
5. Consultations and tests	5	
Student's workload		
Source of workload	hours	ECTS
Total workload	55	3
Contact hours	25	1
Practical activities	28	2