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
Software engineering
Course

Field of study	Year/Semester
Engineering Management	2/4
Area of study (specialization)	Profile of study
	general academic
Level of study	Course offered in
First-cycle studies	Polish
Form of study	Requirements
full-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
15		
Tutorials	Projects/seminars	
	15	

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

Ph.D., Eng. Zbigniew Włodarczak,

Mail to: zbigniew.wlodarczak@put.poznan.pl

Phone: +48 61 665 33 87

Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

Ph.D., Eng. Katarzyna Ragin-Skorecka,

Mail to: katarzyna.ragin-skorecka@put.poznan.pl

Phone: +48 61 665 33 88

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Prerequisites

Basic course in the design of IT management systems. Efficient use of design support tools (Visio) and database design skills. Understanding the need for design skills and management for the implementation of management information systems.

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Course objective

To familiarize students with the methods and CASEs of software engineering used in the design of information management systems.

Course-related learning outcomes

Knowledge

Knows the methods and tools for collecting data required in software engineering, their processing, and selection and distribution of information [P6S_WG_08]

Has basic knowledge of the life cycle in the context of software engineering [P6S_WG_15]

Knows the basic methods, techniques, tools and materials used to solve simple engineering tasks in the field of software engineering [P6S_WG_16]

Has basic knowledge necessary to understand the non-technical determinants of engineering activities in relation to software engineering; knows the basic principles of occupational health and safety in this context [P6S_WG_18]

Skills

Is able to plan and carry out experiments using software engineering methods and techniques, including computer measurements and simulations, interpret obtained results and draw conclusions [P6S_UW_09]

Is able to use analytical, simulation and experimental methods in the field of software engineering to formulate and solve engineering tasks [P6S_UW_10]

Is able to bear responsibility for own work and jointly implemented tasks and is ready to comply with the principles of team work, taking into account the standards in force in software engineering [P6S_UO_01]

Social competences

Is able to see cause-and-effect relationships in achieving the set goals and rank the importance of alternative or competitive tasks in relation to software engineering [P6S_KK_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lectures: problem tasks to do during the lecture, exam

Project: assessment of current work on the design of the application logical model project, ready documentation of the application logical model

Programme content

The course program includes the following issues: creation, implementation, operation and modification of an IT system, integration of IT systems, software engineering tools, functional, domain, system and user requirements; requirements engineering process; requirements management; software

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prototyping; software customization; management of IT systems implementation; personnel management of IT projects - the P-CMM model; estimating the cost of the software.

Teaching methods

Lecture - informative lecture, seminar, case study
Laboratories - laboratory method, project method, brainstorming, demonstration method

Bibliography

Basic

Borucki A. (2012). E-Biznes. Wydawnictwo Politechniki Poznańskiej. Poznań.

Kolbusz E., Olejniczak W., Szyjewski Z. (2005). Inżynieria systemów informatycznych w e-gospodarce. PWE. Warszawa.

Sommerville I. (2003). Inżynieria oprogramowania. WNT. Warszawa.

Jaszkiewicz A. (1997). Inżynieria oprogramowania. Helion. Gliwice.

Additional

Szpringer W. (2012). Innowacyjne modele e-biznesu. Difin. Warszawa.

Flasiński M.(2008). Zarządzanie projektami informatycznymi.PWN

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for project classes, preparation for tests, project preparation) [1]	20	1,0

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1 delete or add other activities as appropriate