STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Management of software projects		**1010335431010337154**
Field of study: **Information Engineering**	Profile of study (general academic, practical): **(brak)**	Year /Semester: **2 / 3**
Elective path/specialty: **Security of Information Technology (IT)**	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: **8** Classes: **-** Laboratory: **-** Project/seminars: **12**		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:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Knowledge in the field of software engineering (subjects learnt during first-cycle studies).
2	**Skills**	Student is able to find information from professional literature, databases and other sources. Student can write requirements concerning software product and then to plan its tests. Student understands a need to learn constantly.
3	**Social competencies**	Social competencies gained during the first-cycle studies.

Assumptions and objectives of the course:

The aim of the course is to discuss problems concerning management of software projects. In particular, the course is oriented to teach and popularize project management in agile methodologies. Subjects are also related to management of human resources including required human competencies, customer relationships management, and risk management.

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

Knowledge:

1. Student has a basic professional knowledge of the software project management, including team work. - [K_W13]

Skills:

1. Student is able to work out the required documentation of a software project undertaken in an agile methodology. - [K_U04]
2. . Student can analyze an existing software solution and to substantiate its improvements. - [K_U12]

Social competencies:

1. Student is aware of his/her social role in the future - he/she understands the need to transfer information concerning development in computing in a comprehensive form which enables the cooperation with software users. - [K_K02]
2. Student is aware of an importance of ethical aspects of computing. The last include a respect of different opinions and cultures. In particular, he/she has knowledge about multi-cultural teams and different cultures in general. - [K_K03]

Assessment methods of study outcomes

The final test (an open test) and student's activity in the class are the base to receive a credit for a course in software project management.

The final mark for the project is an average of partial marks assigned to several required artefacts developed by a student.

Course description

Lectures. Management of a software project in a chosen agile methodology (Scrum in the academic year 2012/13). Required artefacts. User stories (specification of requirements) and setting them out. Technical acceptance of results of every finished iteration. Impact of human factors on a software process. Management of human resources, required professional profiles in a software development organization, competency management. Risk management in a software process. Cooperation with a software product purchaser, customer relationships management. Software product assessment by its real users. Ethical aspects in a software process.

Project. Students work in four-person teams to develop a software project using the Scrum methodology. Student work out all required artefacts in 3 sprints.

Basic bibliography:

1. Phillips J., Zarządzanie projektami IT, 3rd edition, Helion, Gliiwce 2011.
2. Schwaber K., Sutherland J., Software in 30 days, John Wiley & Sons, Hoboken NJ 2012.
3. Highsmith J., Agile project management, Addison-Wesley, Boston 2004.

Additional bibliography:

1. Boehm B., Turner R., Balancing Agility and Discipline, Addison-Wesley, Boston 2004.
2. Burnett K., The Project Management Paradigm, Springer, London 1998.
3. Dyché J., CRM. Relacje z klientami, Helion, Gliwice 2002.
4. Hnatkowska B., Huzar Z., Inżynieria oprogramowania. Metody wytwarzania i wybrane zagadnienia, PWN, Warszawa 2008.
5. Pollice G., Augustine L., Lowe Ch., Madhur J., Software Development for Small Teams, Addison-Wesley, Boston 2004.
6. Subieta K., Wprowadzenie do inżynierii oprogramowania, Wydawnictwo PJWSTK, Warszawa 2002.

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	8
2. Participation in project labs	12
3. Project development including all required artefacts	25
4. Study for a test, consultations	20

Student's workload

Source of workload	hours	ECTS
Total workload	65	3
Contact hours	20	1
Practical activities	45	2