

Subject code: IFI7003	Course title: Project Management	
Amount 6 ECTS	Approximate amount of contact lessons and independent work: 24	Study semester: A
Objective:	To develop knowledge and skills for compiling project plans and the effective execution of them. To acquire specific knowledge necessary for managing software projects	
Course description: (incl. description of the content of independent work in accordance with the determined amount of independent work)	<p>Introduction to the topic. General models and frameworks. The phases of projects: initiation, planning, launching, running and completing a project. Specifics of software projects. Software process management. Some other issues related to (software) project management.</p> <p>Independent work:</p> <ol style="list-style-type: none"> 1) analysis of course materials and web sources (estimated number of hours – 35); 2) solving home assignment exercises (27); 3) preparation of examination work – a project plan or an analysis of a topic (50); 4) preparation of seminar presentation (10); <p>writing a recommendation and a review of a project plan of a fellow student (10).</p>	
Learning outcomes:	A student: 1) knows the basic models and frameworks on project management; 2) knows the specifics of software projects; 3) is able to compose a project plan or an analysis of a project or an analytical report; 4) is able to present and evaluate a project plan.	
Form of evaluation:	<p>The grade is formed from three components of equal weight: 1) examination work (a project plan or an analysis of a project or an analytical report on a topic), 2) the presentation of the examination work, 3) review and evaluation of an examination work.</p> <p>All three components are compulsory; the order of their submission is free.</p> <p>There is a guide for composing the examination works.</p>	

Lecturers:	Professor Peeter Normak
Title in Estonian:	Projektijuhtimine
Prerequisite subjects:	None
Compulsory literature:	Project Management. Course material. Tallinn University, Institute of Informatics, 2011.
Replacement literature:	<p>A Guide to the Project Management Body of Knowledge (PMBOK Guide): 2000 Edition. (2001).</p> <p>Software cost estimation with COCOMO II. Boehm, Barry. (2000).</p> <p>Information Technology Project Management. Schwalbe, K. (2001).</p> <p>Software project management: a unified framework. Royce, Walker. (1998).</p> <p>Strategic planning for project management using a project management maturity model. Kerzner, Harold. (2001).</p> <p>NB! Replacement literature does not cover the whole course sufficiently.</p>
Requirements for participating in studies and taking exams/assessments	<p>All students can attend the course.</p> <p>Exam has three phases:</p> <ol style="list-style-type: none"> 1. The examination works are presented on 16. Dec 2011. This should be supported by MS Powerpoint or OO Impress presentation. 2. The examination work should be sent to the teacher on 22. Dec at the latest. 3. The review and evaluation of aa examination work should be sent before 19. January 2012.
Requirements for independent work	Completing home assignments before the next class.
Exam evaluation criteria or minimum level necessary to pass assessment	<p>1. criterion (assessment of the examination work)</p> <p>A – the examination work is perfect in all aspects (including risk analysis), the topic is very important.</p> <p>B – the examination work has some minor deficiencies, the topic is important.</p> <p>C – the examination work has few serious deficiencies, the topic has a local importance.</p> <p>D – the examination work has serious deficiencies, the topic is questionable.</p> <p>E – the topic does not have any significance.</p> <p>2. criterion (presentation of the examination work)</p> <p>A – the presentation is excellent</p>

	<p>B – the presentation is very good</p> <p>C – the presentation is good</p> <p>D – the presentation is satisfactory</p> <p>E – the presentation is weak</p> <p>3. criterion (review and evaluation, later R&E)</p> <p>A – R&E are absolutely complete and adequate</p> <p>B – R&E are adequate and adequate</p> <p>C – R&E are not quite complete or adequate</p> <p>D – R or E has some serious deficiencies</p> <p>E – R&E have some serious deficiencies</p>
<p>Additional information on course content, division of course by topics, incl. times of contact lessons taking place in the form of seminar.</p> <p>.</p>	<p>Classes will take place at 4:15-7:45pm, room T-416.</p> <p>17.10 Subject description: course organization; introduction to the course; the concept of <i>project</i>, examples of projects; the concept of <i>project management (PM)</i>; PM body of knowledge <i>PMBOK</i>. General models: <i>PM</i> maturity model <i>PMMM</i>, organisational <i>PM</i> maturity model <i>OPM3</i>, project manager's competency development framework.</p> <p>Project initiation: determination of a project goal and possible sponsors, resource analysis.</p> <p>20.10 Project initiation: profitability estimations; project charter, composition of a project team, feasibility study.</p> <p>Project planning: project planning time-table, determination of sub-goals and activities, the structure of a project plan, time-table, project administration, quality assurance.</p> <p>24.10 Project planning: application of expected results, budget, summary of a project plan. Recommendations and reviews. PR-activities.</p> <p>Seminary: Project management software.</p> <p>2.12 Launching a project: management plan, scope management, information management, determination of duties and rights. Running a project: reporting, quality control, resources management, staff development, role of leadership, creating of a necessary environment, devotion of team members, creativity stimulation, teamwork; conflict management.</p> <p>Completion of a project.</p> <p>Related questions (certification of project managers, standards, leading institutions in <i>PM</i> theory and practice etc).</p>

9.12 **Basic principles:** specifics of software projects, critical success factors, phases of software process, personnel and change management, cooperation with upper management, requirements development, quality assurance.

Software process management: software design, software delivery, development cost models, management principles.

Models and methodologies: general overview, waterfall model, two-phase model, multiple phase model, *RUP*, *XP*, capability maturity model for software *CMM-SW*, *NASA* software process improvement model.

Related questions: Software process assessment methodology *SPICE*.

COCOMO cost model. Positive experience in software development. Principles of software development. Standards, Leading institutions in software development theory.

16.12 **Seminary:** students present their project plans (presentation and discussion of project plans developed by students).

Appendix 1

Subject course: Bachelor's thesis

	A	B	C	D	E
Skill of topic selection and problem statement					
<i>Relevance of topic to main speciality or minor speciality</i>	Topic of thesis is related to speciality and choice of topic proves high professional competence	Topic of thesis is related to speciality and choice of topic proves very good professional competence	Topic of thesis is related to speciality and choice of topic proves professional competence	Topic of thesis is related to speciality, but choice of topic shows poor professional competence	Topic of thesis is remotely related to speciality and choice of topic shows poor professional competence
<i>Topicality of problem and clarity of problem statement</i>	Author has proven topicality, originality and practicality of problem. The problem is justified, particular, defined, expresses a new point of view.	Author has proven topicality of problem. The problem is particular, defined and suitable.	Author has proven topicality of problem to some extent, but problem statement is unclear. The problem is interesting, realizable.	Author has somewhat proven topicality of problem . The problem itself and approach are conventional , there is ambiguity in problem statement.	Author has proven topicality of problem insufficiently. The problem is conventional, diffusive and unclear.
<i>Research question</i>	Research question is thoroughly developed in order to answer the research problem.	Research question is developed in order to answer the research problem.	Research question is developed enough to answer the research problem.	Research question is poorly developed in order to answer the research problem.	Research question is not developed.
<i>Unison of problem, objectives, tasks and their suitability to topic</i>	Author has formulated the problem, objectives and tasks, these are mutually in accordance and correspond to topic of thesis.	Author has formulated the problem, objectives and tasks, which are not clearly in accordance, but the problem , objectives and tasks correspond to topic of thesis.	Author has formulated the problem and objective or tasks, which are in accordance with topic of thesis.	Author has briefly described the problem, formulated objective or tasks, which are not in accordance, but are connected to topic of thesis.	Author has briefly described the problem, formulated an objective or tasks, which are not in accordance and are remotely connected to topic of thesis.