

Course

PLET - Project management

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General information

Long name	Project management
Approving CModule	PLET MaET , PLET MaTIN
Responsible	Prof. Dr. Michael Gartz Professor Fakultät IME
Level	Master
Semester in the year	winter semester
Duration	Semester
Hours in self-study	60
ECTS	5
Professors	Prof. Dr. Michael Gartz Professor Fakultät IME Prof. Dr. Uwe Oberheide Professor Fakultät IME
Requirements	basic knowledge of project management basic experience as a member of project teams
Language	German
Separate final exam	Yes

Final exam

Details

The students create a project documentation (project plan, milestone definitions, personnel plan, risk analysis, well-founded organisational decisions, reviews, requirements analysis with specifications, etc.) to determine whether they can reproduce the agile process model developed in the workshop, have understood it and have applied it meaningfully in the 2 week project.

The subsequent project review in the exam interview provides qualitative feedback on several selected aspects of student performance.

Minimum standard

The project documentation does not contain any serious errors or deficiencies and in the exam interview it becomes clear that the basic principles of agile project management have been understood and can be applied.

Exam Type

The students create a project documentation (project plan, milestone definitions, personnel plan, risk analysis, well-founded organisational decisions, reviews, requirements analysis with specifications, etc.) to determine whether they can reproduce the agile process model developed in the workshop, have understood it and have applied it meaningfully in the 2 week project.

The subsequent project review in the exam interview provides qualitative feedback on several selected aspects of student performance.

^ Seminar

Learning goals

Knowledge

Classifying and delimiting terms
explain characteristic properties of development projects
Goal orientation and innovation
Risk of failure
Special organisational form (teamwork)
Limited resources
Limited realization time
abstractly define technical and economic goals in development projects
abstractly define, explain and justify project management tasks
identify and explain basic success and failure factors in project management
unexpected technical problems
insufficient staff qualification
unclear or conflicting requirements
poor project management
Insufficient support from senior management
identify extended challenges arising from a division of labour in project processing

explain selected process models
linear models for business project management
phase model
V-model
agile process models for technical project management
SCRUM
timebox model
classify and compare process models with regard to
development duration, organizational aspects, quality and
cost aspects
professional quality control
Cost and schedule control in business management
Legal requirements for documentation and traceability
of project decisions

characterize basic tasks and expected results in development projects

Planning and control of product quality

Planning and controlling the quality of the development process

overarching legal requirements

industry-specific specifications

company-internal specifications

project risk management

resource management

Documentation of the development process

Specification of the requirements for the product to be developed

Specification of the product design

Product development and manufacturing

product documentation

Verification and validation of the developed product

Product release and product monitoring

Characterize instruments for controlling team processes

Skills

plan essential management tasks, milestones and project documents with regard to the course element "Project"

carry out essential management tasks mentally and identify project risks with foresight

handle essential project management tools in a target-oriented manner

for project (time) planning

for requirement specifications

Planning team building procedures, deriving expected challenges and meaningful measures

identify potential conflict situations in the team and discuss alternative actions

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Seminar	2
Tutorial (voluntary)	0

Separate exam

none

Learning goals

Skills

Lead team

explain to the team members the basic procedure in the project

Capturing and classifying the competencies of team members
agree on goals in terms of content and deadlines

Project management

derive requirements specification in the team from the project order

and prioritize requirements

Create and maintain project plan

Identify project risks and plan meaningful mitigation measures, e.g. early feasibility studies

Create and maintain project schedule

Rough planning of tasks

Plan process

Planning effort, appointments, rooms

Plan Project Reviews

apply agile process model in conjunction with Timebox model to ensure a minimal project success

Define a minimum goal that can be achieved by the team.

define extended goals for fast teams

Drafting a final project report

Document and evaluate results

Document and evaluate the project process

Lead team

Monitoring and controlling goal achievement

Coordinate collaboration between team members

Recognizing and resolving conflict situations within the team

Project management

Planning and managing project sections

plan tasks for the next phase of the project in detail

and assign them meaningfully to the team members

Plan and moderate content reviews with team members

Evaluate project results in the team

Modify the project section plan and, if necessary, the project plan according to the project procedure.

evaluate the approach of the current project phase

retrospectively and, if necessary, modify it for the next project phase.

Document project sections

plan access to shared laboratory resources

computer

tools

special workstations and measuring stations
special test environments
Prepare project decisions in the team

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Project	3
Tutorial (voluntary)	0

Separate exam

Exam Type

working on projects assignment with your team e.g. in a lab)

Details

Leading and documenting development projects (no own project work with regards to content)

Minimum standard

Execution of agile project management over 2 weeks and preparation of the necessary documentation