

# Course Manual 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

**Valid from** winter semester  
2020/21

**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

## Literature

Hans-D. Litke, „Projektmanagement, Methoden, Techniken, Verhaltensweisen, Evolutionäres Projektmanagement“, Hanser

Ken Schwaber: Agiles Projektmanagement mit Scrum (Microsoft Press)

Litke, Kunow, Schulz-Wimmer, „Projekt-Management“, Taschenguide, Haufe

Stefan Kreiser, Skripte der Vorlesung Software Engineering f.d. Automatisierungstechnik: „Projektmanagement, Vorgehensmodelle“, ILIAS

Stanley E.Portny, „Projektmanagement für Dummies“, Wiley

Marcus Heidbrink, „Das Projektteam“, Haufe

Video Tutorial für SCRUM:  
<http://www.video2brain.com/de/videotraining/agile-softwareentwicklung-mit-scrum>

## 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.

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**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.

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**Exam Type**

EN andere summarische Prüfungsform

## – Lecture / Exercises

### Learning goals

<b>Goal type</b>	<b>Description</b>
Knowledge	<p>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</p>
Knowledge	<p>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</p>

### Special requirements

the seminar must be completed in good time before the start of the project

<b>Accompanying material</b>	electronic seminar documents, electronic project planning tools
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<b>Separate exam</b>	No
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Knowledge	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
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Knowledge	Characterize instruments for controlling team processes
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Skills	plan essential management tasks, milestones and project documents with regard to the course element "Project"
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Skills	carry out essential management tasks mentally and identify project risks with foresight
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Skills	handle essential project management tools in a target-oriented manner for project (time) planning for requirement specifications
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Skills	Planning team building procedures, deriving expected challenges and meaningful measures
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Skills	identify potential conflict situations in the team and discuss alternative actions
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### Expenditure classroom teaching

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

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## – Lecture / Exercises

### Learning goals

Goal type	Description
Skills	<p>Lead team</p> <p>explain to the team members the basic procedure in the project</p> <p>Capturing and classifying the competencies of team members</p> <p>agree on goals in terms of content and deadlines</p>
Skills	<p>Project management</p> <p>derive requirements specification in the team from the project order</p> <p>and prioritize requirements</p> <p>Create and maintain project plan</p> <p>Identify project risks and plan meaningful mitigation measures, e.g. early feasibility studies</p> <p>Create and maintain project schedule</p> <p>Rough planning of tasks</p> <p>Plan process</p> <p>Planning effort, appointments, rooms</p> <p>Plan Project Reviews</p> <p>apply agile process model in conjunction with Timebox model to ensure a minimal project success</p> <p>Define a minimum goal that can be achieved by the team.</p> <p>define extended goals for fast teams</p> <p>Drafting a final project report</p> <p>Document and evaluate results</p> <p>Document and evaluate the project process</p>
Skills	<p>Lead team</p> <p>Monitoring and controlling goal achievement</p> <p>Coordinate collaboration between team members</p> <p>Recognizing and resolving conflict situations within the team</p>

### Special requirements

Depending on the number of available project leaders and the number of project teams, students lead at least one team of the first semester project at BaET. The first semester projects usually start in the third week of September as a block event over two weeks.

<b>Accompanying material</b>	<p>electronic project description, electronic description of the competition scenario, electronic project planning tools, electronic development tools for team members</p>
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<b>Separate exam</b>	Yes
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### Separate exam

<b>Exam Type</b>	EN Projektaufgabe im Team bearbeiten (z.B. im Praktikum)
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<b>Details</b>	<p>Leading and documenting development projects (no own project work with regards to content)</p>
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<b>Minimum standard</b>	<p>Execution of agile project management over 2 weeks and preparation of the necessary documentation</p>
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**Skills**

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**

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