

Die Modulbeschreibung sollte direkt über diesen [Link](#) in HISinOne eingepflegt werden.

Module code	Module title	Category
MAI1010	Project Management	MA
	Degree program	MA Software Engineering
	Faculty	Gebäudetechnik und Informatik

Module coordinator	Prof. Dr.-Ing. Oksana Arnold
Module type	Mandatory module
Frequency	1x annually in SuSe
Recommended semester	1. semester
Credit (ECTS-Points)	5
Academic Assessment Method	<p>Coursework requirement</p> <p>PZ = Examination requirement (N: graded)</p> <p>50% project including ready for acceptance and customer approval</p> <p>50% written exam (90 min)</p>
Teaching language	English (lecture), German partly in German-speaking groups
Admission requirements for this Module	none
Module duration	1 semester
Required Registration	<p>Students enrolled in the above-mentioned degree program/standard semester will be registered automatically upon re-enrollment; all other participants, please refer to the information below.</p> <p>none</p>

	Course	Lecturer	Type	Group Size (max.)	Number of Groups	Contact hours per week (SWS)	Workload (in h)	
							Face-to-face	Self-study
1	Project Management	Prof. Dr. Arnold	Seminar	30	1 (max. 3 project teams)	4	60	65 (project contribution)
2	Titel der Lehrveranstaltung.	Dozent*in	Wählen Sie ein Element aus.		Wählen Sie ein Element aus.			
3	Titel der Lehrveranstaltung.	Dozent*in	Wählen Sie ein Element aus.		Wählen Sie ein Element aus.			
4			Wählen Sie ein Element aus.					
5	Titel der Lehrveranstaltung.	Dozent*in	Wählen Sie ein Element aus.		Wählen Sie ein Element aus.			
						Sum	4,0	60
								65

Learning Objectives / Learning outcomes	<p>In demanding business environments with continuous change and increasing complexity, organizations—both established and emerging—must innovate and adapt through projects. Achieving successful project outcomes is often challenging, involving significant risks that can only be mitigated through the application of state-of-the-art project management methods, effective tools, and strong leadership competencies.</p> <p>This module provides students with the opportunity to assume the roles of project managers and leaders in realistic, simulated project scenarios. Students will address technical, organizational, and interpersonal dimensions of complex projects, thereby developing the skills and competencies required to manage them effectively.</p> <p>By the end of the module, students will be able to:</p> <ul style="list-style-type: none">• Understand solution design and solution delivery processes, know the most important work products and manage them.• Identify potential risks in advance, perform continuous risk impact analysis, and develop appropriate mitigation strategies.• Organize teams and teamwork effectively, applying knowledge of social-psychological processes and responding with strong leadership, innovative thinking, and customer-focused decision-making.• Think, argue, and act in a project- and solution-oriented manner. <p>Students will extent and improve their competencies, especially:</p> <ul style="list-style-type: none">• Technical/System Competence: Know, chose, and apply project management tools; model user stories and find feasible IT solutions respectively problem-solving approaches; adapt software engineering principles; establish a project specific configuration and version control system; develop high quality project and software documentation; assess and manage project scope including functional and non-functional requirements and change requests.• Methodological Competence: Apply theoretical computer science knowledge, requirements engineering, modeling, and project management methods as well as design and implementation patterns in interdisciplinary context to address key challenges in project practice.• Social Competence: Strengthen skills in interaction, communication, motivation, and facilitation; develop one's role within a diverse team; enhance empathy, argumentation, and leadership abilities; apply consensus-building strategies for conflict resolution.• Personal Competence: Improve the ability to handle differing opinions, expectations, and constructive criticism; apply new, especially interdisciplinary, knowledge; manage incomplete information and unexpected events; demonstrate initiative in team contributions and self-organization.
Contents	<p>The “Project Management” module is an interdisciplinary course that places previously acquired computer science knowledge into the practical context of project execution. Students work in project teams of 6–10 members, starting with the development of a statement of work in response to a call for proposals, continuing with a work break down structure, work package estimation, project planning, feature implementation, and system testing as well as concluding with the “ready for acceptance” announcement of the final deliverables.</p> <p>The module emphasizes the integration of communication skills, negotiation techniques, and leadership abilities when engaging with team mem-</p>

	<p>bers, customer representatives, and other stakeholders. Students will explore the responsibilities of project managers, the project initiation phases within the solution design process, the knowledge areas of project management including agile approaches, and the key phases of the solution delivery process. Depending on the project life-cycle stage, the following topics are addressed in a situational appropriate manner:</p> <ul style="list-style-type: none"> • Roles and responsibilities of project managers • Communication and negotiation with stakeholders • Project planning, cost estimation, and proposal preparation • Contract types and project execution implications • Project management systems and tools (e.g., Project Control Book, Team Charter, Gantt Chart, Communication Plan, and Earned Value) • Risk management • Change management • Quality management • Human resource management • Project setup and closure procedures
Literature	<ul style="list-style-type: none"> • ARNOLD, O.: Slides of lecture • ARNOLD, O.: Templates for work products • DUNCAN, W.R.: A Guide to the Project Management Body of Knowledge. PMI Standards Committee. Automated Graphic Systems, Charlotte, NC, USA 1996. • MEREDITH, J.R.; MANTEL, S.J. Jr.: Project Management – A Managerial Approach. John Wiley & Sons Inc., New York (NY) USA 2000. • GREENE, J.; STELLMAN, A.: Head First PMP – A Brain-Friendly Guide. 4th Edition – Covers PMBOK Guide 6th Edition. O'Reilly Media Inc., Sebastopol (CA) USA 2018. • KROEGER, O.; THUESEN, J.M.: Type Talk at Work – How the 16 personality types determine your success on the job. Dell Publishing Group, New York (NY) USA 1993. • DeMARCO, T.: The Deadline: A Novel About Project Management, 1997. • PMI; AGILE ALLIANCE: Agile Practice Guide. Project Management Institute (PMI), Chicago (IL) USA 2017. • SUTHERLAND, J.: Scrum: The Art of Doing Twice the Work in Half the Time, 2014. • GREENE, J.; STELLMAN, A.: Head First Agile – A Brain-Friendly Guide. O'Reilly Media Inc., Sebastopol (CA) USA 2017.