

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

Module code	Module title	Category
MAIE2120	Research Project 2	MA
	Degree program	MA Software Engineering
	Faculty	Building Services Engineering and Computer Science

Module coordinator	nn
Module type	Mandatory module
Frequency	1x annually in SuSe
Recommended semester	1. semester
Credit (ECTS-Points)	5
Academic Assessment Method	Exam with prerequisite PrP = Project / Assignment with presentation)
Teaching language	English
Admission requirements for this Module	none
Module duration	1 Semester
Required Registration	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. none

Course		Lecturer	Type	Group Size (max.)	Number of Groups	Contact hours per week (SWS)	Workload (in h)	
							Face-to-face	Self-study
1	Research Project 2	nn	Project assignment	30	1	4	60	65
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
Total Workload for Module							125	

Learning Objectives / Learning outcomes	Focus: <i>Independent research; preparation for master's thesis or publication.</i> By the end of this module, students will be able to: 1. Formulate a research problem and hypothesis grounded in a critical gap analysis. (<i>Create</i>) 2. Design and implement a suitable research methodology, including quantitative, qualitative, or mixed methods. (<i>Create</i>) 3. Collect, process, and analyse empirical or simulation data using appropriate tools and techniques. (<i>Analyse/Evaluate</i>) 4. Engage critically with existing literature, identifying contributions, contradictions, and gaps. (<i>Evaluate</i>) 5. Demonstrate academic writing skills aligned with the standards of scientific publication. (<i>Create</i>) 6. Present and defend research findings to expert and non-expert audiences, using appropriate visual and verbal communication. (<i>Evaluate/Create</i>) 7. Work independently with minimal supervision, showing initiative, responsibility, and academic integrity. (<i>Create</i>) 8. Prepare for potential continuation of the work in a master's thesis, publication, or applied context. (<i>Evaluate/Create</i>)
Contents	This advanced module builds on Research Project 1 and supports students in independently conducting a substantial research study. Based on a critical gap analysis, students formulate their own research question and design an appropriate methodology. They gather, analyse, and interpret data or develop theoretical models, depending on the research approach. The results are critically discussed in relation to existing work and documented in a research-style report or pre-thesis paper. The module strengthens analytical thinking, scholarly writing, and prepares students for possible publication or continuation in the Master's thesis.
Literature	• Creswell, J. W., & Creswell, J. D. (2018). <i>Research Design: Qualitative, Quantitative, and Mixed Methods Approaches</i> (5th ed.). SAGE. • Easterbrook, S., et al. (2008). <i>Selecting Empirical Methods for Software Engineering Research</i>. In <i>Guide to Advanced Empirical Software Engineering</i>. Springer. • O'Leary, Z. (2017). <i>The Essential Guide to Doing Your Research Project</i> (3rd ed.). SAGE. • Alred, G. J., Brusaw, C. T., & Oliu, W. E. (2015). <i>The Handbook of Technical Writing</i> (11th ed.). Bedford/St. Martin's. • Pears, R., & Shields, G. (2019). <i>Cite Them Right: The Essential Referencing Guide</i> (11th ed.). Bloomsbury. • Creswell, J. W., & Creswell, J. D. (2018). <i>Research Design: Qualitative, Quantitative, and Mixed Methods Approaches</i> (5th ed.). SAGE. • Easterbrook, S., et al. (2008). <i>Selecting Empirical Methods for Software Engineering Research</i>. In <i>Guide to Advanced Empirical Software Engineering</i>. Springer.

	• O'Leary, Z. (2017). The Essential Guide to Doing Your Research Project (3rd ed.). SAGE. • Alred, G. J., Brusaw, C. T., & Oliu, W. E. (2015). The Handbook of Technical Writing (11th ed.). Bedford/St. Martin's. • Pears, R., & Shields, G. (2019). Cite Them Right: The Essential Referencing Guide (11th ed.). Bloomsbury.
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