

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

Module code	Module title	Category
MAIE2020	Ethics and Data Protection	MA
	Degree program	MA Software Engineering
	Faculty	Building Services Engineering and Computer Science

Module coordinator	Prof. Dr.in Anna Neovesky
Module type	Mandatory module
Frequency	1x annually in WiSe
Recommended semester	2. semester
Credit (ECTS-Points)	5
Academic Assessment Method	Exam PZ = Examination requirement (N: graded) PZ (N), K90)
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	Ethics and Data Protection	Neovesky	Seminar	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		Wählen Sie ein			

			Element aus.		Element aus.			
					Sum	4,0	60	65
Total Workload for Module							125	

Learning Objectives / Learning outcomes	<p>The seminar examines ethical principles and data protection practices relevant to software engineering. It addresses moral responsibilities, central ethical and regulatory frameworks, and strategies to design responsible, privacy-preserving systems. The course combines theory, discussions, and case studies.</p> <p>By the end of the seminar, students will be able to:</p> <ul style="list-style-type: none"> • Recognize ethical dilemmas in software engineering practice and place them within relevant ethical debates and theories • Identify, evaluate, and mitigate biases in data, algorithms, and decision-making processes • Critically examine the influence of dominant actors in technology and software industry • Understand and critically evaluate data protection laws and their implications for software development • Implement privacy-conscious software design principles • Reflect on the societal impact and ethical responsibilities of technologies
Contents	<ul style="list-style-type: none"> • Overview of ethical frameworks and the role of ethics in software development • Privacy and data protection, ethical vs. legal obligations, legal frameworks (e.g. GDPR) • Privacy-conscious software design principles (e.g. privacy by design, data minimization) • Data bias and algorithmic bias: sources of bias in datasets and models, auditing techniques, and bias mitigation strategies • Social and cultural impacts of software systems: access, inequality, inclusion, digital divide • Digital systems in the context of state and society: democracy, governance, human rights • Case-based analysis and discussion of ethical questions and dilemmas in software projects
Literature	<ul style="list-style-type: none"> • Herman T. Tavani, Ethics and Technology: Controversies, Questions, and Strategies for Ethical Computing, 2016 • Joseph Migga Kizza, Ethical and Secure Computing, 2023 • Eleni Kosta, Dara Hallinan, Paul De Hert (Ed.), Data Protection and Privacy, 2021–2025 (selected articles) • Further reading on specific topics will be announced during the seminar.