

Module name					
Software Engineering - Introduction					
Module nr. 18-su-1010	Credit points 6 CP	Workload 180 h	Self-study 120 h	Module duration 1 Term	Module cycle Winter term
Language German			Module owner Prof. Dr. rer. nat. Andreas Schürr		
1	Teaching content The lecture gives an introduction to the broad discipline of software engineering. All major topics of the field - as entitled e.g. by the IEEE's “Guide to the Software Engineering Body of Knowledge” - get addressed in the indicated depth. Main emphasis is laid upon requirements elicitation techniques (software analysis) and the design of software architectures (software design). Ethical issues are addressed using the “ACM/IEEE-CS Software Engineering Code of Ethics and Professional Practice”. UML (2.0) is introduced and used throughout the course as the favored modeling language. This requires the attendees to have a sound knowledge of at least one object-oriented programming language (preferably Java). During the lecture, running examples are utilized to explain and exercise the presented software engineering techniques.				
2	Learning objectives This lecture aims to introduce basic software engineering techniques - with recourse to a set of best-practice approaches from the engineering of software systems - in a practice-oriented style. After successful completion of the module, students should be able to uncover, collect and document essential requirements with respect to a software system in a systematic manner using a model-based approach. Furthermore, at the end of the course a variety of means to acquiring insight into a software system's design (architecture) should be at the student's disposal.				
3	Recommended prerequisites for participation sound knowledge of an object-oriented programming language (preferably Java)				
4	Form of examination DefaultModule exam: <ul style="list-style-type: none">DefaultModule exam (Technical examination, Examination, DefaultDuration: 90 Min., Default RS)				
5	Prerequisite for the award of credit points Passing the final module examination				
6	Grading DefaultModule exam: <ul style="list-style-type: none">DefaultModule exam (Technical examination, Examination, Weighting: 100 %)				
7	Usability of the module BSc ETiT, BSc iST, BSc Wi-ETiT				
8	Grade bonus compliant to §25 (2) Grade improvements up to 0.4 per APB 25 (2) due to bonus for regularly submitted homework tasks				
9	References https://www.es.tu-darmstadt.de/lehre/aktuelle-veranstaltungen/se-i-v and Moodle				
Courses					
	DefaultCourse nr. 18-su-1010-vl	Course name Software Engineering - Introduction			
	Instructor Prof. Dr. rer. nat. Andreas Schürr			Type Lecture	SWS 3

	DefaultCourse nr. 18-su-1010-ue	Course name Software Engineering - Introduction		
	Instructor Prof. Dr. rer. nat. Andreas Schürr, M.Sc. Lars Fritsche	Type Practice	SWS 1	