Module description: Software Engineering 2

Module Code	t.BA.IT.SWEN2.19HS
ECTS Credits	2
Language of Instruction/Examination	German
Organizational Unit	InIT
Module Coordinator	Andreas Meier
Legal Framework	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.
Module Characteristic	Type 1a 2 lecture lessons per semester week and class
Module Description	Agile methodologies like SCRUM and XP etc. have become mainstream in software development. In this lecture we study the agile principles, practices and values of SCRUM and XP.
Module Content	**Agile methodologies, Agile Manifesto and pyramid of agile competencies** **Technical- und collaboration practices, agile values** **Build Automation, Continuous Integration, DevOps, Code Metrics** **Software Craft** **Software Architecture, Software Architecture Patterns** **Agile Software Development in large teams with Scrum** **Agile Estimating and Planning (Daily, Iteration and Release Planning)** **Complexity in software projects**
Prerequisite Knowledge	PROG1, PROG2, SWEN1

Learning Objectives (Competences)

Students...	Competencies	Taxonomies
The students have a working kowledge of agile technical and collaboration practices	F, M	K3
The students understand the important aspects of agile software development	F, M	K2, K3
The students know SCRUM and XP as important agile methodologies	M	K2, K3

Performance Assessment

End-of-module exam	Assessment	Length (min.)	Weighting	Form
written exam	Grade	30	80	

Performance assessment during the semester	Assessment	Length (min.)	Weighting	Form
Group Assignment	Grade	15	20	

Classroom Attendance Requirement	None

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Learning material	• Slides SWEN2 • Tidy First? A Personal Exercise in Empirical Software Design, Kent Beck, ISBN: 978-1-098-15124-9
Comments	• Participation in group work and any specialist presentation by is mandatory. • The end-of-semester exam is conducted as an e-assessment.