Modellierung

Winter

(engl. Modeling)

Modulnummer: FIN-INF-110127

Kürzel	CP	Semester	Fachsem.	Dauer	Sprache	Niveau
Mod	5	Winter	starting at 1.	1 Semester	deutsch	Bachelor

Link zum LSF:	LSF
Zugang beschränkt:	
Verantwortung:	Dr.-Ing. Daniel Staegemann
Dozent:in:	Dr.-Ing. Daniel Staegemann
Lehrveranstaltungen:	• Vorlesung *Modellierung* • Übung *Modellierung*
Verwendbarkeit:	- B.Sc. INF: Informatik I - Pflicht - B.Sc. CV: Informatik I - Pflicht - B.Sc. INGINF: Informatik I - Pflicht - B.Sc. WIF: Gestalten - Pflicht - B.Sc. INF (bilingual): Informatik I - Pflicht

Angestrebte Lernergebnisse:
Students ...

- are able to represent systems, data and processes using various modeling techniques.
- can design, present and communicate solutions within the framework of information and communication systems.
- can abstract complex, creative issues and think analytically.
- can design and present concepts for IT solutions and computer-aided solutions in such a way that they can be implemented on this basis.
- can apply the skills they have acquired in abstraction and representation, especially with regard to the mapping of processes, to fulfill tasks at the interface of computer science, business informatics and economics, but also in the context of subject areas outside of computer science.

- can adapt the representation of their concepts and ideas to the needs of different stakeholders and thus make a valuable contribution to the success of a wide variety of projects in numerous contexts and across different disciplines.

Inhalt:

- Modeling Theory: From the discourse world to formalized information models
- Processes, Workflows, and Business Processes
- Meta-models, Reference Modeling
- Principles of Proper Modeling
- Basics of XML
- Domain Conceptual Modeling with High-level Petri Nets, the Entity-Relationship Method, and BPMN
- Object-Oriented Modeling with UML
- Implementation of Concrete Tasks

Arbeitsaufwand:

- Attendance Time: 28 semester hours per week (SWS) of lectures + 28 SWS of exercises
- Independent Work: 54 hours of preparation and follow-up for the lectures + 40 hours of model development for the exercises

Prüfungsvorleistungen:	**Studien-/Prüfungsleistungen:**	**Lehrform / SWS:**
	Graded und ungraded written examination, 120 Min.	• Lecture (2 SWS) • Exercise (2 SWS)

Voraussetzungen nach Prüfungsordnung:	**Empfohlene Voraussetzungen:**
none	

Medienformen:	**Literatur:**
	Kecher, C. (2011): UML 2 – Das umfassende Handbuch. 4. Aufl. Reisig, W. (1998): Systementwurf mit Netzen. Berlin u. a.

Hinweise:

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