03-IMS-SRSE	Seminar on Topics in Robot Software Engineering

Lehrform *(teaching format)* / **SWS** *(hours per week)*: 2SE

Kreditpunkte *(credit points)*: 3

Turnus *(frequency)*: every summer

Inhaltliche Voraussetzungen *(content-related prior knowledge/skills)*: Foundations in Robotics and AI

Sprache *(language)*: English

Lehrende *(teaching staff)*: AG Software Engineering für Kognitive Robotik und Systeme (Prof. Dr. Nico Hochgeschwender)

Studiengang *(degree program)*	Module	Semester
Informatik (Master)	IMS	ab 1.Sem.
AI and Intelligent Systems (Master)	AI-R-MS	from 2nd sem.
Informatik (Bachelor VF)	(nur *Freie Wahl*)	ab 4.Sem.

Lernergebnisse / *Learning Outcome*:

- To be able to communicate in the terminology of the field of software engineering for cognitive robots and systems and to classify methods, concepts, components and tools using this terminology.
- To be able to assess state-of-the-art methods, concepts and tools and to identify and describe research gaps in the field.
- To be able to summarize and present latest research results in the field.

Inhalte / *Contents*:

- Selected topics in the field of robot software engineering covering the whole life-cycle from identifying and specifying requirements of cognitive robots, specifying and designing cognitive robot components and architectures, implementing these architectures on simulated and real robots, deploying, testing and evaluating cognitive robots in real and virtual environments.

Hinweise *(remarks)*: The table lists only the primary / most specific modules to which this course is assigned.