03-IMAA-CTHCI	Current Topics in Human-Computer Interaction

Lehrform *(teaching format)* / **SWS** *(hours per week)*: 4K

Kreditpunkte *(credit points)*: 6

Turnus *(frequency)*: usually, each summer term

Inhaltliche Voraussetzungen *(content-related prior knowledge/skills)*: Foundations in Human-Computer-Interaction

Sprache *(language)*: English

Lehrende *(teaching staff)*: N.N.

Studiengang *(degree program)*	Module	Semester
Infornatik (Master)	IMA, IMA-DMI, IMA-VMC	ab 1.Sem.
Digital Media (Master)	DMM-MI	ab 1.Sem.
AI and Intelligent Systems (Master)	AI-M-CER	from 2nd sem.
Management Information Systems (Master)	MIS-INF2	ab 1.Sem.
Digital Media & Society (Master)	B.1	ab 1.Sem.
Zertifikatsstudium DiMePäd	DM in Lernumgebungen	ab 1.Sem.
Informatik (Bachelor)	(nur *Freie Wahl*)	

Lernergebnisse / *Learning Outcome*:

- Knowledge of interaction design beyond WIMP
- Knowledge of research methods in Human-Computer Interaction
- Ability to conceptualize and develop beyond-WIMP interfaces
- Ability to plan and conduct evaluations of beyond-WIMP interfaces
- Professional and communicative competence

Inhalte / *Contents*:

“From GUI to NUI” :

After having achieved a general overview of the area of Human-Computer Interaction (HCI), learn more on the fundamentals of human-computer interaction and especially post-desktop interfaces and ubiquitous interaction. Work together in small teams on a semester-long project. Each week, in the labs, present and discuss work with peers. Develop your own concept of a NUI and document it in a research paper. The course will start with a brief re-cap on design principles (Fitts’ law, Norman: affordances, mappings, constraints, seven stages of action) and processes (Design Process, Evaluation & Statistical Testing) in HCI. You will read and present literature about methods in HCI. The main focus will be on the properties and characteristics of so called post-desktop or natural user interfaces (NUI), including but not limited to:

- Tangible Interfaces
- Gestural Interfaces
- Interaction in AR / VR / MR
- Wearable Interfaces

- Haptic Interaction
- Physiological Interaction

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