# Module title
Introduction into Human-Computer Interaction

# Abbreviation
10-MCS=HCI-161-m01

## Module coordinator
holder of the Chair of Computer Science IX

## Module offered by
Institute of Computer Science

## ECTS
5

## Method of grading
numerical grade

## Only after succ. compl. of module(s)
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## Duration
1 semester

## Module level
graduate

## Other prerequisites
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### Contents

Human-Computer Interaction is concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them. This course gives an introduction into the principle biological, physiological, and psychological constraints as defined by the human user and relates these constraints to the conceptual and technical solutions of today’s computer systems and existing as well as prospective interaction metaphors between humans and computers. The course covers topics about human perception and cognition, memory and attention, the design of interactive systems, prominent evaluation methods, the principles of computer systems, typical input processing techniques, interface technology, and examples of typical interaction metaphors, from text-based input to graphical desktops to multimodal interfaces. Accompanying lab-work will introduce students to typical tasks involved in this field, i.e., prominent evaluation methods and prototyping of interfaces.

### Intended learning outcomes

After the course, the students will have a broad understanding of the underlying principles of human users and computer systems. They will understand the constraints and capabilities of current user interfaces and they will learn about the necessary steps applied in user-centered design and development approaches.

### Courses

(type, number of weekly contact hours, language — if other than German)

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### Method of assessment

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

- presentation of project results (approx. 30 minutes)
- Language of assessment: German and/or English
- creditable for bonus

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

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### Module appears in

- Master’s degree (1 major) Mathematics (2016)
- Master’s degree (1 major) Computational Mathematics (2016)
- Master’s degree (1 major) Computational Mathematics (2019)
- Master’s degree (1 major) Mathematics (2019)