Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

Subdivided Module Catalogue

for the Subject

Human-Computer-Interaction

as a Master's with 1 major

with the degree "Master of Science"

(120 ECTS credits)

Examination regulations version: 2014
Responsible: Faculty of Human Sciences
Responsible: Institute of Human Computer Media

Course of Studies - Contents and Objectives

The Master of Human-Computer Interaction is an interdisciplinary course of studies that teaches HCI-related competencies as well as competencies in computer science and psychology. The course imparts advanced knowledge on the following subjects:

- Programming and programming techniques;
- Software design and analysis;
- Usability management, human factors design and user experience design;
- User interface design of interactive systems;
- Advanced interaction techniques and paradigms;
- Advanced statistical methods;
- Technological foundations of computational systems;
- Interdisciplinary relationships to other fields of application.

Graduates strengthen the following methodological competencies:

- Analytic thinking and planning and the ability to abstract;
- Algorithmic thinking and design;
- Understanding of and the ability to structure complex relationships in research and application;
- Ability to develop and carry out HCI projects in practice;
- Specialised skills in designing experiments and advanced statistics.

Graduates can apply their knowledge and understanding as well as their problem-solving skills to new and unfamiliar situations that lie in a broad or multidisciplinary context relating to their academic field. They can make scientifically-founded decisions and draw conclusions, also on the basis of incomplete or limited information. They can consider and communicate social, scientific and ethical insights that also derive from the application of their knowledge and their decisions. They can independently acquire new knowledge and ability and can carry out independent scientific or applied research projects in a largely self-directed manner. They can take on lead responsibility in a team.

Abbreviations used

Course types: **E** = field trip, **K** = colloquium, **O** = conversatorium, **P** = placement/lab course, **R** = project, **S** = seminar, **T** = tutorial, **Ü** = exercise, **V** = lecture

Term: **SS** = summer semester, **WS** = winter semester

Methods of grading: **NUM** = numerical grade, **B/NB** = (not) successfully completed

Regulations: **(L)ASPO** = general academic and examination regulations (for teaching-degree programmes), **FSB** = subject-specific provisions, **SFB** = list of modules

Other: **A** = thesis, **LV** = course(s), **PL** = assessment(s), **TN** = participants, **VL** = prerequisite(s)

Conventions

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Notes

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should the module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with

the general regulations governing the degree subject described in this module catalogue:

ASPO2009

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

10-Jul-2014 (2014-31)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.

The subject is divided into

Abbreviation	Module title	ECTS credits	Method of grading	page
Compulsory Courses (70 ECTS credits)				
06-HCI-BS-131-m01	User Interfaces	5	NUM	7
06-HCI-ST-131-m01	Software Technology	5	NUM	23
06-HCI-THCI-142-m01	HCI Theories	5	NUM	24
06-HCI-METH-142-m01	Advanced methods of data analysis	5	NUM	18
06-HCI-IS-131-m01	Interactive Systems	5	NUM	16
06-HCI-IS2-142-m01	Interactive Systems 2	5	NUM	17
06-HCI-SIO-142-m01	Software in organisations	5	NUM	22
06-HCI-MTG-142-m01	Human-Technology-Society	5	NUM	19
06-HCI-Proj-131-m01	HCI-Project	10	NUM	20
06-HCI-Sem-131-m01	HCI Seminar	5	NUM	21
06-HCI-Exhib-131-m01	Exhibition HCI-Project	5	NUM	8
06-HCI-BPrakt-131-m01	Internship	10	B/NB	6
Compulsory Electives (20 ECTS credits)				
06-HCI-ID1-131-m01	Interdisciplinary Relations 1	5	NUM	10
06-HCI-ID2-131-m01	Interdisciplinary Relations 2	5	NUM	11
06-HCI-VHCI-142-m01	Specialisation HCI 1	5	NUM	28
06-HCI-VHCI2-142-m01	Specialisation HCI 2	5	NUM	29
06-HCI-UM-142-m01	Advanced Usability	5	NUM	26
06-HCI-HF-142-m01	Advanced Human Factors	5	NUM	9
06-HCI-UX-142-m01	Advanced Human Experience	5	NUM	27
06-HCI-Info1-131-m01	Computer Science: Theories, Methods, Application I	5	NUM	12
06-HCI-Info2-131-m01	Computer Science: Theories, Methods, Application II	5	NUM	13
06-HCI-Info3-131-m01	Computer Science: Theories, Methods, Application III	5	NUM	14
06-HCI-Info4-131-m01	Computer Science: Theories, Methods, Application IV	5	NUM	15
06-HCI-Tut-131-m01	Work experience as a research and teaching assistant	5	B/NB	25
Thesis (30 ECTS credits)				
06-HCI-Abschl-131-m01	HCI Master's Thesis	30	NUM	5

Module title			Abbreviation
HCI Master's Thesis			06-HCI-Abschl-131-m01
Module coordinator			**Module offered by**
unknown			Institute of Human Computer Media
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
30	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

The students have to individually work on an assigned problem in the field of Human-Computer Interaction and document their results using good scientific standards.

Intended learning outcomes

Participants will learn how to apply scientific methods from the HCI field. They will learn a structured approach starting from a definition and motivation of research questions and the discussion and summery of related work from scientific publications and prior approaches. Following this they will learn how to develop own concepts and methods to tackle the questions and how to implement them and potentially to evaluate the results.

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

C (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written thesis (approx. 50 pages)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Internship			06-HCI-BPrakt-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
10	(not) successfully completed	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

Practical experience is an important skill and source of information for application-oriented aspects of various sciences and the related job descriptions. This is also true for Human-Computer Interaction (HCI). This course requires the participants to take part in an internship either in the academic field or in the industry.

Intended learning outcomes

The participants will learn how potential future jobs and employments will be characterized and what kind of qualifications will be expected from them.

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

R (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

placement report / fieldwork report / report on practical training / report on practical course / project report / report on technical course (approx. 2 pages)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
User Interfaces			06-HCI-BS-131-m01
Module coordinator			**Module offered by**
unknown			Institute of Human Computer Media
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

V + Ü + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Exhibition HCI-Project			06-HCI-Exhib-131-m01
Module coordinator		**Module offered by**	
chairperson of examination committee of the Master's degree programme Human-Computer Interaction		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Presentation and communication skills are important for application-oriented and practical aspects of various sciences. This is particularly true for human-computer interaction (HCI). This course requires participants to present the results of an associated project to a larger audience in an exhibition-like setup.

Intended learning outcomes

The participants will learn how to present their own work to a larger audience, how to plan, design and set-up the different parts of an own exhibition booth, and how to react individually to questions from the audience.

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

R (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

presentation (approx. 30 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Advanced Human Factors			06-HCI-HF-142-m01
Module coordinator			**Module offered by**
unknown			Institute of Human Computer Media
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

German contents available but not translated yet.

In diesem Modul werden vertieft Inhalte und Methoden der Human Factors Forschung gelehrt, also der Gestaltung sicherheitskritischer Systeme. So kann dieses Modul z.B. ein Seminar zum Einsatz und der Anwendung von Blickbewegungsmessung in der Mensch-System Interaktion beinhalten, das beispielhaft wie folgt aufgebaut sein kann: In der ersten Hälfte des Seminars werden Grundlagen der Blickbewegungsmessung behandelt (z.B. verschiedene eye tracking Techniken, Auge und visuelles System, Auswertung von eye-tracking Daten, ...). In der zweiten Hälfte werden verschiedene Anwendungsmöglichkeiten durch studentische Vorträge vorgestellt (z.B. Usability, Biometrische Authentifikation, eye tracking in der Luftfahrt, Gaze Contingent Displays, workload, ...). Des Weiteren werden Projekte in Gruppen durchgeführt, in denen eine Fragestellung mittels Blickbewegungsmessung untersucht wird.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Modul verstehen die Studierenden die Prinzipien ausgewählter Human Factors Methoden und Domänen und sind in der Lage selbst Studien durchzuführen, um Fragestellungen aus dem Bereich der Mensch-System Interaktion zu untersuchen. Des weiteren können sie die Vor- und Nachteile verschiedener Methoden abschätzen und empirische Studien beurteilen und kritisch hinterfragen.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Interdisciplinary Relations 1			06-HCI-ID1-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

German contents available but not translated yet.

In diesem Modul werden Bezüge zu Nachbarwissenschaften hergestellt, die die bisherigen im Studium erworbenen Kompetenzen erweitern und vertiefen, z.B. Medienkommunikation, Wirtschaftsinformatik, Interaction Design, Techniksoziologie, Psychologie, Informatik, Museologie, Digital Humanities, Geographie u.a.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Module verstehen die Studierenden Problemstellungen und Methoden in den angrenzenden Wissenschafts- und Anwendungsgebieten. Sie entwickeln Kenntnisse, Fähigkeiten und Fertigkeiten in Bezug auf Kommunikation, Kooperation und Konfliktlösung in interdisziplinären Teams.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Interdisciplinary Relations 2			06-HCI-ID2-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

German contents available but not translated yet.

In diesem Modul werden Bezüge zu Nachbarwissenschaften hergestellt, die die bisherigen im Studium erworbenen Kompetenzen erweitern und vertiefen, z.B. Medienkommunikation, Wirtschaftsinformatik, Interaction Design, Techniksoziologie, Psychologie, Informatik, Museologie, Digital Humanities, Geographie u.a.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Module verstehen die Studierenden Problemstellungen und Methoden in den angrenzenden Wissenschafts- und Anwendungsgebieten. Sie entwickeln Kenntnisse, Fähigkeiten und Fertigkeiten in Bezug auf Kommunikation, Kooperation und Konfliktlösung in interdisziplinären Teams.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Computer Science: Theories, Methods, Application I			06-HCI-Info1-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

V + Ü + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Computer Science: Theories, Methods, Application II			06-HCI-Info2-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

V + Ü + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Computer Science: Theories, Methods, Application III			06-HCI-Info3-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

V + Ü + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Computer Science: Theories, Methods, Application IV			06-HCI-Info4-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

V + Ü + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Interactive Systems			06-HCI-IS-131-m01
Module coordinator		**Module offered by**	
holder of the Chair of Computer Science IX		Institute of Computer Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

V + Ü + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Interactive Systems 2			06-HCI-IS2-142-m01
Module coordinator		**Module offered by**	
holder of the Chair of Computer Science IX		Institute of Computer Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

A (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Advanced methods of data analysis			06-HCI-METH-142-m01
Module coordinator		**Module offered by**	
holder of the Chair of Psychological Ergonomics		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Descriptive statistics, correlations and the comparison of two or several mean values are basic methods of data analysis. This course will acquaint students with advanced statistical methods such as repeated-measures one and multiple-way analysis of variance, process and conjoint analysis, and exploratory as well as confirmatory factor analysis. Each session will include examples of applications and will provide students with an insight into the numerous capabilities of different methods of data analysis. At the end of the semester, students will sit a graded written examination.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Module kennen die Studierenden fortgeschrittene Methoden der Statistik und können diese in wissenschaftlichen Texten verstehen und einordnen. Die Studierenden sind in der Lage die Methoden bezüglich Vor- und Nachteile gegenüberzustellen um für eine spezifische Problemstellung die geeignetste Methode auszuwählen. Des weiteren beherrschen sie die Grundschritte der Anwendung dieser Methoden.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Human-Technology-Society			06-HCI-MTG-142-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

German contents available but not translated yet.

Sollen wir Roboter in der Altenpflege einsetzen? Macht das Internet die Welt demokratischer? Soll der Staat unseren Datenverkehr überwachen dürfen? Die Gestaltung von Technik hat große Auswirkungen auf die Gesellschaft in der wir leben. Dabei lassen sich viele der entstehenden Fragen nicht einfach mit ja oder nein beantworten. Dieser Kurs führt in das Themenfeld Technik und Gesellschaft ein. Anhand von Debatten um aktuelle gesellschaftliche Themen der Techniknutzung werden Pro und Contra scharf gestellt und aktuelle Meinungsbilder hinterfragt.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Modul kennen und verstehen die Studierenden aktuelle gesellschaftliche Theorien und Themen mit Mensch-Technik-Bezug. In der Debatte pointieren sie Sichtweisen und lernen die Sichtweisen anderer sozialer Gruppen kennen und vertreten. Sie lernen komplexe gesellschaftliche Sachverhalte zu verstehen, zu analysieren und in ihren Auswirkungen zu beurteilen.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
HCI-Project			06-HCI-Proj-131-m01
Module coordinator			**Module offered by**
unknown			Institute of Human Computer Media
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
10	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

R (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

report (approx. 15 pages)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
HCI Seminar			06-HCI-Sem-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Sound research requires an in-depth reflection of prior approaches and the related work typically published in the scientific media (conference proceedings, journals, books, etc.). This course is an advanced course about typical scientific research work with a specific focus on topics from the field of human-computer interaction (HCI). During the course, students will have to work on one specific topic as a preparation for their master thesis. They will have to find relevant publications, read the publications and analyze them given some defined research questions and/or categories of the current state-of-the-art. They have to summarize and present their findings to a larger audience.

Intended learning outcomes

After the course, the participants will have a solid understanding of an important aspect of typical research work. They will have learned how to read scientific publications, how to extract relevant information, and how to summarize their findings.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Software in organisations			06-HCI-SIO-142-m01
Module coordinator		**Module offered by**	
holder of the Chair of Psychological Ergonomics		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

The productivity paradox suggests that an increase in investment in information technology leads to hardly any noticeable increase in the overall level of productivity of a business. This is not true, however, if the focus is on investment in humans. When introducing standard software in organisations, there are numerous aspects to be considered. This module will focus on three areas: usability management during the introduction of software, the planning and running of user training courses, and organisational change management. Using the example of the introduction of enterprise resource planning (ERP) systems such as SAP software, this module will discuss procedures and success factors.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Modul können die Studierenden die Schritte bei der Einführung von Software in Organisationen benennen und den Prozess beim Usability Management, Planung und Durchführung von Benutzerschulungen und Organisationales Change Management. zusammenfassen. Des weiteren sind sie in der Lage die nötigen Schritte des Prozesses vorzubereiten und zu planen bzw. können sie existierende Prozesse prüfen, anpassen und ggf. verbessern.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Software Technology			06-HCI-ST-131-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

V + Ü + S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 25 minutes)
Language of assessment: German or English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
HCI Theories			06-HCI-THCI-142-m01
Module coordinator		**Module offered by**	
holder of the Chair of Psychological Ergonomics		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

Human-computer interaction is a discipline at the interface between social and computer science. It explores how humans use devices and systems and how the usefulness and the usability of these devices and systems may be enhanced. In the early years of the discipline, the development of theories and models was influenced mainly by theories from the cognitive sciences on perception, motor functions, memory etc. The development in the cognitive sciences, the increasingly international character and rapid technological progress then led to both a specialisation and new theoretical approaches in HCI. This seminar will explore classic as well as new theoretical approaches and methods in HCI trying to find a common framework despite all specialisation and fragmentation.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Modul habe die Studierenden eine umfangreiche Kenntnis über theoretische Ansätze und Methoden der HCI und unterscheiden aus welchen Traditionen bestimmte theoretische Ansätze und Methoden entstanden sind. Diese Kenntnisse ermöglichen eine Einschätzung der Angemessenheit einer Theorie oder Methode für ein spezielles Problem und ermöglichen damit auch eine theoretisch begründete und bewusste Entscheidung für oder gegen eine Theorie oder Methode.

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

A (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Work experience as a research and teaching assistant			06-HCI-Tut-131-m01
Module coordinator		**Module offered by**	
chairperson of examination committee of the Master's degree programme Human-Computer Interaction		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	(not) successfully completed	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

The students have to individually work as tutors (research and/or teaching assistants) in the scope of the bachelor program Mensch-Computer Systeme (MCS) and/or the master program Human-Computer Interaction (HCI). The tasks will be individually defined from the range of individual tasks typically associated with academic work in the field.

Intended learning outcomes

Competencies will span two areas. Working as a teaching assistant, participants will learn how to teach others about HCI topics. They will gain a better understanding on the problems students may face during learning. Working as a research assistant, participants will gain first-hand as well practical experience on the methodology of scientific work.

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

P (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

report (approx. 2 pages)

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)
Master's degree (1 major) Human-Computer-Interaction (2013)

Module title			Abbreviation
Advanced Usability			06-HCI-UM-142-m01
Module coordinator			**Module offered by**
unknown			Institute of Human Computer Media
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

German contents available but not translated yet.

In diesem Modul werden vertieft Inhalte, Methoden und Anwendungen der Usability Forschung gelehrt, also der Gestaltung von Mensch-Computer-Systemen entlang der Kriterien Effektivität, Effizienz und Zufriedenstellung. Anwendungsbeispiele kommen dabei aus der industriellen Anwendung, dem Fahrzeug- und Bürobereich, aber auch aus dem öffentlichen und privaten Raum.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Modul verstehen die Studierenden die Prinzipien ausgewählter Usability Methoden und Domänen und sind in der Lage selbst Benutzungsschnittstellen zu gestalten sowie Studien durchzuführen, um Fragestellungen aus dem Bereich der Mensch-System Interaktion zu untersuchen. Des weiteren können sie die Vor- und Nachteile verschiedener Methoden abschätzen und empirische Studien sowie Gestaltungslösungen beurteilen und kritisch hinterfragen.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Advanced Human Experience			06-HCI-UX-142-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	graduate	--	

Contents

German contents available but not translated yet.

In diesem Modul werden vertieft Inhalte, Methoden und Anwendungen der User Experience Forschung gelehrt, also der Gestaltung von Mensch-Computer-Systemen hinsichtlich eines guten Erlebens der Benutzer. Anwendungsbeispiele kommen dabei aus dem öffentlichen und privaten Raum, beinhalten z.B. Kundenzufriedenheit, Persuasive Interfaces, Ästhetische Gestaltung und Service Design.

Intended learning outcomes

German intended learning outcomes available but not translated yet.

Nach der Teilnahme an diesem Modul verstehen die Studierenden die Prinzipien ausgewählter User Experience Methoden und Domänen und sind in der Lage selbst Benutzungsschnittstellen zu gestalten sowie Studien durchzuführen, um entsprechende Fragestellungen aus dem Bereich der Mensch-System Interaktion zu untersuchen. Des weiteren können sie die Vor- und Nachteile verschiedener Methoden abschätzen und empirische Studien sowie Gestaltungslösungen beurteilen und kritisch hinterfragen.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Specialisation HCI 1			06-HCI-VHCI-142-m01
Module coordinator			**Module offered by**
unknown			Institute of Human Computer Media
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)

Module title			Abbreviation
Specialisation HCI 2			06-HCI-VHCI2-142-m01
Module coordinator		**Module offered by**	
unknown		Institute of Human Computer Media	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	unknown	--	

Contents

No information on contents available.

Intended learning outcomes

No information on intended learning outcomes available.

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

S (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

a) written examination (approx. 75 minutes) or b) presentation (approx. 20 minutes) with handout (approx. 2 pages) or c) presentation of project results (approx. 20 minutes) or d) term paper (approx. 10 pages) or e) a total of approx. 5 hours of completing exercises or f) oral examination (approx. 35 minutes)
Language of assessment: German, English

Allocation of places

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Additional information

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Workload

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Teaching cycle

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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) Human-Computer-Interaction (2014)