

Subdivided Module Catalogue for the Subject

Computational Humanities

as a Master's with 1 major with the degree "Master of Arts" (120 ECTS credits)

Examination regulations version: 2025 Responsible: Faculty of Arts, Historical, Philological, Cultural and Geographical Studies Responsible: Faculty of Mathematics and Computer Science Responsible: Institute of Computer Science

UNIVERSITÄT WÜRZBURG

Learning Outcomes

German contents and learning outcome available but not translated yet.

Fachliche Ziele

- Die Absolventinnen und Absolventen können geistes- und kulturwissenschaftliches Wissen modellieren, daraus digitale Objekte erstellen und schließlich präsentieren. Sie beherrschen anspruchsvolle digitale geisteswissenschaftliche Werkzeuge, können digitale Textobjekte algorithmisch prozessieren und analysieren und - auch in großer Zahl - verwalten.
- Die Absolventinnen und Absolventen besitzen die Fähigkeit, Fragestellungen der Digital Humanities im Kontext der aktuellen Forschung zu operationalisieren, einen Workflow zu ihrer Beantwortung zu konzipieren, die nötigen Arbeitsschritte (s. o.) durchzuführen und das gesamte Projekt zu dokumentieren.

Befähigung, eine qualifizierte Erwerbstätigkeit aufzunehmen

- Die Absolventinnen und Absolventen besitzen die Fähigkeit, Fragestellungen der Digital Humanities zu analysieren, Verfahren zu deren Lösung zu entwickeln und in entsprechenden Arbeitsschritten umzusetzen.
- Die Absolventinnen und Absolventen können Problemzusammenhänge in mündlicher wie schriftlicher Form sachgerecht aufbereiten und unter Medieneinsatz zielgruppenspezifisch vermitteln.
- Durch die Auswahl bestimmter Module aus dem Wahlpflichtbereich kann ein Schwerpunkt "Data Science" gebildet werden. Ein entsprechendes Zertifikat ist in Vorbereitung (Herbst 2020).

Befähigung zum gesellschaftlichen Engagement

- Die Absolventinnen und Absolventen können gesellschaftliche und kulturelle Entwicklungen, Themen und Positionen in ihrer sprachlichen Verfasstheit und darüber hinaus reflektieren und analysieren. Sie sind in der Lage, sich in einer zunehmend komplexer werdenden Welt zu orientieren und eine Wertvorstellung für das eigene Denken und Handeln zu entwickeln.
- Die Absolventinnen und Absolventen sind in der Lage, geistes- und kulturwissenschaftliche Fragestellungen in die andere Diskurswelt der Informatik zu transferieren. Diese Vermittlerrolle trägt dazu bei, die eigene soziale, kulturgeschichtliche wie geschlechtliche Herkunft kritisch zu reflektieren.

Persönlichkeitsentwicklung

- Die Absolventinnen und Absolventen sind zur selbstständigen und kritischen Reflexion in der Lage und haben gelernt, ihre eigene Position im Dialog mit anderen zu finden, schriftlich und mündlich zu präsentieren und selbstkritisch zu hinterfragen.
- Den Absolventinnen und Absolventen stand die Möglichkeit offen, im Rahmen eines Auslandsaufenthalts internationale und interkulturelle Kompetenzen zu sammeln und eine interkulturelle Sensibilisierung zu erreichen.

Abbreviations used

Course types: \mathbf{E} = field trip, \mathbf{K} = colloquium, \mathbf{O} = conversatorium, \mathbf{P} = placement/lab course, \mathbf{R} = project, \mathbf{S} = seminar, \mathbf{T} = tutorial, $\ddot{\mathbf{U}}$ = exercise, \mathbf{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:

ASPO2015

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

07-May-2025 (2025-39)

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	breviation Module title		Method of grading	page			
Compulsory Courses (60 ECTS credits)							
10-l=AML-252-m01	Advanced Machine Learning	10	B/NB	21			
10-l=MoNLP-252-m01	Modern Natural Language Processing	10	B/NB	24			
10-l=MMA1-252-m01	Multimedia Analysis 1	10	NUM	22			
04-CH=CH1-252-m01	Computational Humanities I	5	NUM	5			
10-CH=CH2-252-m01	Computational Humanities II	5	NUM	13			
04-CH=CH3-252-m01	Computational Humanities III	5	NUM	6			
04-CH=TM-252-m01	Temporal modeling	5	NUM	12			
04-CH=Rl1-252-m01	Research Project Computational Humanities I	10	NUM	11			
Compulsory Electives (30	ECTS credits)						
10-l=MMA2-252-m01	Multimedia Analysis 2	10	NUM	23			
10-l=AMC-252-m01	Advanced Methods of Computer Science	10	NUM	20			
04-CH=CHD-252-m01	Cultural Heritage Data Management	5	NUM	7			
04-CH=DE-252-m01	Digital Edition	5	NUM	9			
10-CH=DT-252-m01	Digitization Technologies	5	NUM	14			
04-CH=DA-252-m01	Principles of data annotation	5	NUM	8			
04-CH=NFT-252-m01	New research avenues in Computational Humanities	5	NUM	10			
10-CH=NFM-252-m01	New research methods in Computational Humanities	5	NUM	18			
10-CH=Rl2-252-m01	Research Project Computational Humanities II	10	NUM	19			
10-CH=HCI-252-m01	Foundations of Human-Computer-Interaction	5	NUM	15			
Thesis (30 ECTS credits)	Thesis (30 ECTS credits)						
10-CH=MT-252-m01	Master-Thesis Computational Humanities	25	NUM	17			
10-CH=MK-252-m01	Concluding Colloquium Computational Humanities	5	NUM	16			

Module title				Abbreviation	
Computational Humanities I				04-CH=CH1-252-m01	
Module	e coord	inator		Module offered by	
Chair o Moderi	f Digita n Perioc	l Humanities and Germa d	n Literature of the	Faculty of Arts, Hist Geographical Studi	orical, Philological, Cultural and es
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate	-		
Conten	lts				
The con texts fr researce luation	orse tea om soc ch and o of the	aches the skills needed fo ial media. This includes t developing a research de extraction method, and s	or the systematic ana the following tasks: F sign to test it, autom tatistical analysis of	lysis of written cultu ormulating a researc ated extraction of sp the data.	ral data, e.g., literary texts or h hypothesis based on existing ecific text features including eva-
Intend	ed learı	ning outcomes			
Studen ons ab	its are a out the	able to independently im extraction and analysis r	plement at least one methods to be used,	typical research des and implement then	ign in CH, make informed decisi- n technically.
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
V (2) + Module	Ü (2) e taugh	t in: English			
Metho ster, in	d of ass formati	s essment (type, scope, la on on whether module ca	nguage — if other than be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) pres b) writt c) oral Langua credita	entatio en exa examin age of a ble for	n (20 to 30 minutes) with mination (45 to 60 minut ation (approx. 20 minute ssessment: English bonus	n written elaboration es) or es)	(3 to 5 pages) or	
Allocat	ion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
150 h	150 h				
Teaching cycle					
Teaching cycle: every year, winter semester					
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appea	in a start			
Master	's degr	ee (1 major) Computation	al Humanities (2025))	
Master	's degr	ee (2 majors) Computatio	onal Humanities (202	5)	

Module	e title				Abbreviation
Computational Humanities III				04-CH=CH3-252-m01	
Module	e coord	inator		Module offered by	
Chair o Moderr	of Digita n Perioo	ll Humanities and German d	n Literature of the	Faculty of Arts, Hist Geographical Studi Institute of Comput	orical, Philological, Cultural and es er Science
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
The cou images art and the ext	urse tea s. This i develo raction	aches the necessary skills ncludes the following tas oping a research design to process, and statistical a	s for the systematic a ks: Formulating a res o test it, automated e analysis of the data.	nalysis of cultural da earch hypothesis in extraction of specific	ata, e.g., literary texts, music, consultation with the state of the features including evaluation of
Intende	ed lear	ning outcomes			
Studen ons ab	its are a out the	able to independently imperture extraction and analysis r	plement at least one nethods to be used,	typical research desi and implement them	ign in CH, make informed decisi- n technically.
Course	s (type	, number of weekly conta	ct hours, language —	- if other than Germa	n)
V (2) + Module	Ü (2) e taugh	t in: English			
Metho ster, in	d of ass formati	sessment (type, scope, la ion on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) pres b) writt c) oral Langua credita	entatio en exa examin age of a ble for	n (20 to 30 minutes) with mination (45 to 60 minute ation (approx. 20 minute ssessment: English bonus	ı written elaboration es) or s)	(3 to 5 pages) or	
Allocat	ion of _l	olaces			
Additio	onal inf	ormation			
Offerin phical	g Instit Studies	utions: Institute of Comp	uter Science, Faculty	of Arts, Historical, Pl	nilological, Cultural and Geogra-
Worklo	ad				
150 h					
Teaching cycle					
Teaching cycle: every year, winter semester					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module appears in					
Master	Master's degree (1 major) Computational Humanities (2025)				
Master	Master's degree (2 majors) Computational Humanities (2025)				

Module title				Abbreviation	
Cultural Heritage Data Management				04-CH=CHD-252-m01	
Module co	ordinator		Module offered by		
Chair of Dig Modern Pe	gital Humanities and Germa riod	n Literature of the	Faculty of Arts, Hist Geographical Studi	orical, Philological, Cultural and es	
ECTS Me	ethod of grading	Only after succ. con	npl. of module(s)		
5 nu	merical grade				
Duration	Module level	Other prerequisites			
1 semester	graduate				
Contents					
Cultural da terms of in be availab was create	ita and research data from the dexing, management and pr le for very different applicati d. The seminar teaches relev	ne cultural sciences a reservation. The data ons, if possible also vant principles and te	ind humanities often should often be usa for scenarios that we echniques.	pose special challenges in ble for a long period of time and ere not considered when the data	
Intended le	earning outcomes				
Students u plement te	nderstand the challenges of chniques for its managemer	^F cultural data manag nt.	ement, can model cu	ultural data and design and im-	
Courses (ty	/pe, number of weekly conta	ct hours, language –	- if other than Germa	n)	
S (2) Module tai	ught in: English				
Method of ster, inform	assessment (type, scope, la nation on whether module ca	nguage — if other than be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
a) presenta b) written e c) oral exar Language e creditable	ation (20 to 30 minutes) with examination (45 to 60 minut mination (approx. 20 minute of assessment: English for bonus	n written elaboration es) or es)	(3 to 5 pages) or		
Allocation	of places				
Additional	information				
Workload					
150 h					
Teaching cycle					
Teaching cycle: if announced					
Referred to	Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module ap	pears in				
Master's d Master's d	Waster's degree (1 major) Computational Humanities (2025) Master's degree (2 majors) Computational Humanities (2025)				

Principles of data annotation o4-CH=DA-252-mo1 Module coordinator Module offered by Chair of Digital Humanities and German Literature of the Modern Period Georgaphical Studies ECTS Method of grading Only after succ. compl. of module(s) 5 numerical grade Duration Module tevel Other prerequisites a graduate a graduate Contents Data annotation, i.e., the linking of concepts from the humanities and cultural studies with cultural data, is an essential tool for the development and evaluation of automatic processes in the CH. The seminar teaches the relevant work process from the development of annotation guidelines to their technical implementation in an annotation environment, the training of annotators, and the calculation of measures of inter-annotator agreement. Interded learning outcomes Students can independently develop an annotation and implement it themselves or supervise its implementation. Students can independently develop an annotation and implement it themselves or supervise its implementation. Students can independently develop an annotation and implement it themselves or supervise its implementation. Students can independently develop an annotation and implement it themselves or supervise its implementation.	Module title			Abbreviation		
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Additional information Workload 150 h Teaching cycle Teaching cycle: if announced Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Computational Humanities (2025) Master's degree (2 majors) Computational Humanities (2025)	Allocat	ion of p	olaces			
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Module appears in Master's degree (1 major) Computational Humanities (2025) Master's degree (2 majors) Computational Humanities (2025)						
Master's degree (1 major) Computational Humanities (2025) Master's degree (2 majors) Computational Humanities (2025)	Module	e appea	rs in			
	Master Master	Master's degree (1 major) Computational Humanities (2025) Master's degree (2 majors) Computational Humanities (2025)				

Module title			Abbreviation		
Digital Edition					04-CH=DE-252-m01
Module	e coord	inator		Module offered by	
Chair o Moderr	f Digita 1 Perio	l Humanities and Germai d	n Literature of the	Faculty of Arts, Hist Geographical Studi	orical, Philological, Cultural and es
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Digital dience	edition . The m	s make historical docum odule teaches the princip	ents accessible and poles and techniques of	prepare them for the of designing, editing	questions of a scientific au- and presenting digital editions.
Intende	ed lear	ning outcomes			
Studen the cor	its und iceptio	erstand the functions and n, presentation or prepar	l characteristics of di ation of digital editio	gital editions and ca ns.	n independently take on roles in
Course	s (type	, number of weekly conta	ct hours, language –	· if other than Germa	n)
S (2) Module	e taugh	t in: English			
Metho	d of ass	essment (type, scope, la	nguage — if other tha	an German, examina	tion offered — if not every seme-
ster, in	formati	on on whether module ca	an be chosen to earn	a bonus)	· · · · · · · · · · · · · · · · · · ·
a) pres b) writt c) oral Langua	entatio en exa examin ge of a ble for	n (20 to 30 minutes) with mination (45 to 60 minute ation (approx. 20 minute ssessment: English	n written elaboration es) or s)	(3 to 5 pages) or	
Allocat	ion of I	places			
Additio	onal inf	ormation			
Worklo	ad				
150 h					
Teaching cycle					
Teaching cycle: if announced					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module	Module appears in				
Master	Master's degree (1 major) Computational Humanities (2025)				
Master	Master's degree (2 majors) Computational Humanities (2025)				

Module title			Abbreviation		
New research avenues in Computational Humanities				04-CH=NFT-252-m01	
Module coo	rdinator		Module offered by		
Chair of Digi Modern Peri	tal Humanities and German od	n Literature of the	Faculty of Arts, Hist Geographical Studi	orical, Philological, Cultural and es	
ECTS Met	hod of grading	Only after succ. con	npl. of module(s)		
5 num	erical grade				
Duration	Module level	Other prerequisites			
1 semester	graduate				
Contents					
Due to their cially impor e.g., the dev	close links to computer sci cant to keep knowledge up relopment of a new form of	ence and AI, CH are of to date. Current rese information represer	developing particula arch trends are discu ntation, information	rly rapidly, which makes it espe- ussed using a selected example, extraction, or data analysis.	
Intended lea	arning outcomes	,			
Insight into current rese	current research on a selec arch on a selected topic.	ted topic of CH. Acqu	iisition of the compe	tence to compile and understand	
Courses (typ	e, number of weekly conta	ct hours, language –	- if other than Germa	n)	
S (2) Module taug	ght in: English				
Method of a ster, informa	ssessment (type, scope, la ation on whether module ca	nguage — if other than be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
a) presentat b) written ex c) oral exam Language of creditable fo	ion (20 to 30 minutes) with camination (45 to 60 minut ination (approx. 20 minute assessment: English or bonus	n written elaboration es) or es)	(3 to 5 pages) or		
Allocation o	f places				
Additional i	nformation				
Workload					
150 h	150 h				
Teaching cycle					
Teaching cycle: if announced					
Referred to	in LPO I (examination regu	lations for teaching-	degree programmes)		
Module app	ears in				
Master's de Master's de	gree (1 major) Computation gree (2 majors) Computatic	al Humanities (2025) mal Humanities (202) 5)		

Module title			Abbreviation		
Research Project Computational Humanities I			nities I		04-CH=RI1-252-m01
Module	coord	inator		Module offered by	
Chair of Modern	f Digita Perioc	l Humanities and German 1	n Literature of the	Faculty of Arts, Hist Geographical Studi Institute of Comput	orical, Philological, Cultural and es er Science
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
10	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
The respired the respired to the response of the result of	earch p neir ow esis to	project gives students the n choosing. Ideally, they data collection and analy	e opportunity to indep should work on a res ysis, or at least comp	pendently apply wha search question from lete a significant ste	t they have learned so far to a to- the formulation of the research p in the process.
Intende	ed leari	ning outcomes			
Studen priate s	ts are a teps, a	able to work on a problem and present the results.	n in the CH, develop p	procedures for solvin	g it, implement these in appro-
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
R (o) Module	taugh	t in: English			
Method ster, inf	l of ass formati	s essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
written Langua credital	project ge of a ble for	t essay (12 to 20 pages) ssessment: English bonus			
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
Offering phical S	g Instite Studies	utions: Institute of Comp	uter Science, Faculty	of Arts, Historical, Pl	nilological, Cultural and Geogra-
Worklo	ad				
300 h					
Teaching cycle					
Teaching cycle: every year, winter semester					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Master'	Master's degree (1 major) Computational Humanities (2025)				
Master'	Master's degree (2 majors) Computational Humanities (2025)				

Module title				Abbreviation		
Temporal modeling					04-CH=TM-252-m01	
Module	e coordi	inator		Module offered by		
Chair o Moderr	f Digita 1 Perioc	l Humanities and Germar	h Literature of the	Faculty of Arts, Hist Geographical Studi	orical, Philological, Cultural and es	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
Central rical de mena r retical and rel	questi evelopm equires foundat ated m	ons in the humanities an nents rather than static su specific methods of data tions and practical applic achine learning methods	d cultural studies foo napshots. The compu a preparation and qu ation of temporal mo	cus on the analysis o uter-assisted investig antitative analysis. T odeling, in particular	f dynamic processes and histo- gation of such diachronic pheno- his module introduces the theo- statistical time series analysis	
Intende	ed learr	ning outcomes				
Studen The foc odizati	ts learr us is or on hype	n how to prepare diachron n the practical application otheses or uncover patter	nic data and analyze n of methods such as ms in historical data.	historical developm s time series and tren	ents using quantitative methods. nd analysis in order to test peri-	
Course	s (type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
S (2) Module	e taugh	t in: English				
Metho ster, in	d of ass formati	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
a) pres b) writt c) oral Langua credita	entatio en exar examin ge of a ble for	n (20 to 30 minutes) with nination (45 to 60 minute ation (approx. 20 minute ssessment: English bonus	written elaboration es) or s)	(3 to 5 pages) or		
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
150 h						
Teaching cycle						
Teachi	Teaching cycle: every year, winter semester					
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
Module	e appea	rs in				
Master	's degre	ee (1 major) Computation	al Humanities (2025)			
Master	Master's degree (2 majors) Computational Humanities (2025)					

Module title			Abbreviation			
Computational Humanities II				10-CH=CH2-252-m01		
Module	coord	nator		Module offered by		
Chair of Modern	Digita Perioc	l Humanities and Germaı I	n Literature of the	Institute of Comput	er Science	
ECTS	Metho	d of grading	Only after succ. com	pl. of module(s)		
5	numei	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Content	S					
Process cus on c the follc sign to t thod, ar	ing an corpus owing t cest it, nd stat	d discussion of exemplar analysis of non-textual c asks: Formulating a rese automated extraction of istical analysis of the dat	y research questions ultural data such as arch hypothesis base specific audio or ima a.	using computationa audio, music, image ed on existing resear ge features including	al humanities methods, with a fo- , video, or 3D data. This includes ch and developing a research de- g evaluation of the extraction me-	
Intende	d learr	ing outcomes				
Student pus ana	s are a lyses o	ble to answer research q of non-textual data.	uestions in computa	tional humanities ar	nd to carry out and evaluate cor-	
Courses	; (type,	number of weekly conta	ct hours, language –	· if other than Germa	n)	
V (2) + Ü Module) (2) taugh	tin: English				
Method ster, inf	of ass ormati	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
a) prese b) writte c) oral e Languag creditab	entatio en exar examin ge of a ole for l	n (20 to 30 minutes) with nination (45 to 60 minute ation (approx. 20 minute ssessment: English bonus	n written elaboration es) or s)	(3 to 5 pages) or		
Allocati	on of p	olaces				
Additio	nal info	ormation				
Workloa	ad					
150 h	150 h					
Teaching cycle						
Teaching cycle: every year, summer semester						
Referred	d to in	LPO I (examination regu	lations for teaching-o	legree programmes)		
Module	Module appears in					
Master's	s degre	ee (1 major) Computation	al Humanities (2025))		
Master's	Master's degree (2 majors) Computational Humanities (2025)					

Module title				Abbreviation	
Digitization Technologies					10-CH=DT-252-m01
Module	e coord	inator		Module offered by	
Chair o Moderi	of Digita n Perioo	ll Humanities and German	n Literature of the	Institute of Comput	er Science
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Treatin the acc	g and c quisitio	liscussing exemplary scient nand processing of imag	entific questions with e data, in particular (methods of image-t using document ana	ext digitization. The focus is on lysis methods.
Intend	ed lear	ning outcomes			
Studen analysi	its are a is.	able to work on, carry out	and evaluate scienti	fic questions of ima	ge-text digitization and document
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
S (2) Module	a taugh	t in: English			
Metho		assmant (type, scope, la	nguago — if other the	an Corman, oxamina	tion offered — if not even some
ster, in	formati	ion on whether module ca	an be chosen to earn	a bonus)	alon onered — It not every seme-
a) pres b) writt c) oral Langua credita	entatio en exa examin age of a ble for	n (20 to 30 minutes) with mination (45 to 60 minut ation (approx. 20 minute ssessment: English bonus	n written elaboration es) or es)	(3 to 5 pages) or	
Allocat	ion of _l	olaces			
Additio	onal inf	ormation			
Worklo	ad				
150 h					
Teaching cycle					
Teaching cycle: if announced					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	Module appears in				
Master	Master's degree (1 major) Computational Humanities (2025)				
Master	Master's degree (2 majors) Computational Humanities (2025)				

Module title			Abbreviation		
Founda	tions o	f Human-Computer-Inter	action		10-CH=HCI-252-m01
Module	e coord	inator		Module offered by	
				Institute of Comput	er Science
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster				
Conten	ts				
Intende	ed learr	ning outcomes			
Course	s (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)
V (3) +	Ü (1)				
Module	taugh	t in: German and/or Engl	ish		
Methoo ster, inf	l of ass formati	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-
a) writt b) pres	en exar entatio	nination (approx. 120 mi n (30 to 60 minutes) or	nutes) or		
c) oral e	examin	ation of one candidate ea	ach (30 to 60 minute	5)	
If annoi	ation o	by the lecturer at the beg f one candidate each (ar	inning of the course,	an oral examination	tion may be replaced by an oral
prox. 14	5 minut	es per candidate).	prox. 20 minutes) of		
Langua	ge of a	ssessment: German and	or English		
credita	ble for	bonus			
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Master	Master's degree (1 major) Computational Humanities (2025)				
Master	Master's degree (2 majors) Computational Humanities (2025)				

Module	Module title Abbreviation						
Conclu	ding Co	olloquium Computational	Humanities		10-CH=MK-252-m01		
Module	e coord	inator		Module offered by			
Dean of Studies Informatik (Computer Science)			Science)	Faculty of Arts, Historical, Philological, Cultural and Geographical Studies Institute of Computer Science			
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)			
5	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	graduate					
Conten	ts						
Presen	tation a	and defence of the results	s of the Master's thes	is in an open discus	sion.		
Intende	ed learı	ning outcomes	,				
Studen	ts are a	able to present the result	s of their Master's the	eses and defend the	m in a discussion.		
Course	s (type	, number of weekly conta	ct hours, language –	if other than Germa	n)		
К (о)							
Metho ster, in	d of ass formati	s essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-		
final co Langua	olloquiu Ige of a	ım (approx. 60 minutes) ssessment: German and,	/or English				
Allocat	ion of p	olaces					
Additio	onal info	ormation					
Offerin phical	g Institi Studies	utions: Institute of Comp s	uter Science, Faculty	of Arts, Historical, Pl	hilological, Cultural and Geogra-		
Worklo	ad						
150 h							
Teaching cycle							
Teaching cycle: every semester							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Master's degree (1 major) Computational Humanities (2025)							
Master's degree (2 majors) Computational Humanities (2025)							

Module	Module title Abbreviation					
Master	Thesis	Computational Humanit	ies		10-CH=MT-252-m01	
Module coordinator				Module offered by		
Dean of Studies Informatik (Computer Science)			Science)	Faculty of Arts, Historical, Philological, Cultural and Geographical Studies Institute of Computer Science		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
25	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Content	ts					
Indeper	ndent r	esearch and work on a to	pic of computational	humanities that wa	s agreed upon with a lecturer.	
Intende	d learr	ning outcomes				
The stur method ble mar	dent is Is that nner.	able to independently re they acquired in the mas	search a given subje ter courses. They are	ct in computer scien able to present the 1	ce and use the knowledge and result of their work in an accepta-	
Courses	s (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)	
A						
Method ster, inf	l of ass ormati	e ssment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
Master' Langua	s thesi ge of a	s (60 pages) ssessment: German and,	or English			
Allocati	ion of p	olaces				
Additio	nal info	ormation				
Time to complete: 6 months Offering Institutions: Institute of Computer Science, Faculty of Arts, Historical, Philological, Cultural and Geogra- phical Studies						
Worklo	ad					
750 h						
Teaching cycle						
Teaching cycle: every semester						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) Computational Humanities (2025)						
Master's degree (2 majors) Computational Humanities (2025)						

Module	Module title Abbreviation						
New research methods in Computational Humanities					10-CH=NFM-252-m01		
Module coordinator				Module offered by			
Dean o	f Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science		
ECTS	Metho	od of grading	Only after succ. com	Only after succ. compl. of module(s)			
5	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	graduate					
Conten	ts						
New res	search	methods for the computa	ational humanities.				
Intende	ed learr	ning outcomes					
Studen stand,	ts have apply a	e specialized knowledge on nd evaluate these metho	of new research meth ds.	ods in computation	al humanities. They can under-		
Course	s (type,	number of weekly conta	ct hours, language —	if other than Germa	n)		
S (2) Module	e taugh	t in: English					
Methoo ster, in	l of ass formati	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-		
a) preso b) writt c) oral o Langua credita	a) presentation (20 to 30 minutes) with written elaboration (3 to 5 pages) or b) written examination (45 to 60 minutes) or c) oral examination (approx. 20 minutes) Language of assessment: English creditable for bonus						
Allocat	ion of p	olaces					
Additio	nal info	ormation					
Workload							
150 h							
Teaching cycle							
Teaching cycle: if announced							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Master	Master's degree (1 major) Computational Humanities (2025)						
Master	Master's degree (2 majors) Computational Humanities (2025)						

Research Project Computational Humanities II 10-CH=RI2-252-m01 Module coordinator Module offered by Dean of Studies Informatik (Computer Science) Faculty of Arts, Historical, Philological, Cultural						
Module coordinatorModule offered byDean of Studies Informatik (Computer Science)Faculty of Arts, Historical, Philological, Cultural						
Dean of Studies Informatik (Computer Science) Faculty of Arts, Historical, Philological, Cultural						
Geographical Studies Institute of Computer Science						
ECTS Method of grading Only after succ. compl. of module(s)						
10 numerical grade						
Duration Module level Other prerequisites						
1 semester graduate						
Contents						
Practical application of the knowledge and skills developed in the programme within a further research proj the Computational Humanities.						
Intended learning outcomes						
Within a further research project, students are able to define a research problem, develop methods to solve problem and implement these methods in appropriate steps.						
Courses (type, number of weekly contact hours, language — if other than German)						
R (o) Module taught in: English						
Method of assessment (type, scope, language — if other than German, examination offered — if not every se ster, information on whether module can be chosen to earn a bonus)						
written project essay (15 to 20 pages) Language of assessment: English creditable for bonus						
Allocation of places						
Additional information						
Offering Institutions: Institute of Computer Science, Faculty of Arts, Historical, Philological, Cultural and Geo phical Studies						
Workload						
300 h						
Teaching cycle						
Teaching cycle: if announced						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) Computational Humanities (2025)						

Module	Module title Abbreviation					
Advanced Methods of Computer Science					10-l=AMC-252-m01	
Module coordinator				Module offered by		
Dean of Studies Informatik (Computer Science)			Science)	Institute of Comput	er Science	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
10	numei	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
Further	specia	l methods of computer s	cience.			
Intende	ed learr	ning outcomes				
Studen stand, a	ts have apply, a	e specialized knowledge i adapt and evaluate the re	n the field of advanc espective methods.	ed methods of comp	outer science. They can under-	
Course	s (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V (2) + I	Ü (2)					
Module	taugh	t in: English				
Method ster, inf	l of ass formati	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-	
written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (ap- prox. 15 minutes per candidate). Language of assessment: English creditable for bonus						
Allocati	ion of p	olaces				
Additio	nal info	ormation				
Workload						
300 h						
Teaching cycle						
Teaching cycle: if announced						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master'	Master's degree (1 major) Computational Humanities (2025)					

Module title A					Abbreviation		
Advanced Machine Learning 10-I=AML-252-m01							
Module coordinator				Module offered by			
Dean of Studies Informatik (Computer S			Science) Institute of Computer Science				
ECTS	Metho	od of grading	Only after succ. compl. of module(s)				
10	(not) s	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	graduate					
Conten	ts						
The lect applica method field of retical f all the r	ture protion ex tion ex ds of m deep l founda models	ovides advanced knowled amples for NN architectu achine learning and their earning, such as CNNs, R tions of these models, su s covered, it is shown how ration	dge of deep learning t res, e.g. in the field o technical backgroun NNs and sequence-to tch as training throug w they are used in pra	techniques such as f image and speech d are presented. Bui p-sequence architect h backpropagation, ctice for specific pro	FCN, CNN and LSTMs, practical processing. Current models and ilding on this, models from the cures, are discussed. The theo- are also discussed in detail. For blems such as image processing		
Intende	ed lear	ning outcomes					
Studen res and ture, of	ts have how t data p	e knowledge of the possil hey are implemented in ty reparation and of solving	ble applications and l ypical tools, of the ab g concrete tasks.	imitations of deep lo ility to reprogram ne	earning, of important architectu- etwork structures from the litera-		
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
V (2) + Module	Ü (2) + e taugh	T (2) t in: English					
Methoo ster, inf	Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)						
written If annot examin prox. 15 Langua credital	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (ap- prox. 15 minutes per candidate). Language of assessment: English eraditable for bonus						
Allocat	ion of j	olaces					
Additio	nal inf	ormation					
Worklo	Workload						
300 h							
Teaching cycle							
Teaching cycle: every year, winter semester							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Master's degree (1 major) Computational Humanities (2025)							
Master's degree (2 majors) Computational Humanities (2025)							

Module	Module title Abbreviation						
Multim	edia Ar	nalysis 1			10-I=MMA1-252-m01		
Module coordinator				Module offered by			
Dean of Studies Informatik (Computer Science)			Science)	Institute of Comput	er Science		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
10	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 semes	ster	graduate					
Conten	ts						
Advanc machin manitie	ed tech e learn s.	nniques for the analysis of ing methods. Discussion	of multimodal data (e and evaluation of su	.g. audio/music production . .ch methods in the c	cessing, image processing) using ontext of the computational hu-		
Intende	ed learr	ning outcomes					
Student knowled underst	ts have dge in t tand, a	e a fundamental understa the field of multimedia p pply, further develop and	nding of the respecti rocessing. They have I evaluate the algoritl	ve data types as wel gained experience v nms.	ll as theoretical and practical with typical tasks and are able to		
Courses	s (type,	number of weekly conta	ct hours, language —	if other than Germa	n)		
V (2) + ĺ Module	Ü (2) + taugh	T (2) t in: English					
Method ster, inf	Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)						
written If annou examin prox. 15 Langua credital	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (ap- prox. 15 minutes per candidate). Language of assessment: English craditable for bonus						
Allocati	ion of p	olaces					
Additio	nal info	ormation					
Workload							
300 h							
Teaching cycle							
Teaching cycle: every year, summer semester							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Master'	s degre	ee (1 major) Computation	al Humanities (2025)				

Module	Module title Abbreviation						
Multim	edia Aı	nalysis 2			10-I=MMA2-252-m01		
Module coordinator				Module offered by			
Dean of Studies Informatik (Computer Science)			Science)	Institute of Comput	er Science		
ECTS Method of grading Only after succ. co			Only after succ. com	pl. of module(s)			
10	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 semes	ster	graduate					
Conten	ts						
Advanc using m humani	ed tech nachine ities.	nniques for analyzing and e learning methods. Discu	other data modality (e ussion and evaluation	e.g. image processin n of such methods ir	g, audio/music processing) n the context of computational		
Intende	ed leari	ning outcomes					
Studen knowle underst	ts have dge in tand, a	e a fundamental understa the field of multimedia p pply, further develop and	nding of the respecti rocessing. They have I evaluate the algoritl	ve data types as wel gained experience v nms.	ll as theoretical and practical vith typical tasks and are able to		
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
V (2) + Í Module	Ü (2) taugh	t in: English					
Method ster, inf	l of ass formati	essment (type, scope, la on on whether module ca	nguage — if other tha an be chosen to earn	an German, examina a bonus)	tion offered — if not every seme-		
written If annou examin prox. 15 Langua credital	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (ap- prox. 15 minutes per candidate). Language of assessment: English						
Allocati	ion of p	olaces					
Additio	nal inf	ormation					
Workload							
300 h							
Teaching cycle							
Teaching cycle: every year, summer semester							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Master'	s degr	ee (1 major) Computation	al Humanities (2025)				

Module	e title		Abbreviation					
Modern Natural Language Processing 10-I=MoNLP-252-mo1								
Module	e coord	inator		Module offered by				
Dean of Studies Informatik (Computer S		Science)	cience) Institute of Computer Science					
ECTS Method of grading			Only after succ. con	Only after succ. compl. of module(s)				
10	(not) s	successfully completed						
Duratio	on	Module level	Other prerequisites	Other prerequisites				
1 seme	ster	graduate						
Conten	ts							
Linguis tation s directic Cross-l shot tra guage a ment.	tic univ spaces. onal lar ingual ansfer v adapta	versals: words, morpholo . Transformer architecture nguage models, causal ar transfer: from word align with multilingual Transfor tion, multilingual sentend	gy, parts-of-speech, s e and Pretrained (mul nd masked language ment and label projec mer-based language ce encoders, large lan	syntax. Neural Langu tilingual) Language modeling. Machine f ction, over MT-based models. Advanced t nguage models (LLM	age Models and word represen- Models: autoregressive and bi- translation and word alignment. I transfer to zero-shot and few- opics: modularization and lan- s): instruction tuning and align-			
Intende	ed lear	ning outcomes						
Intended learning outcomesStudents will acquire theoretical and practical knowledge on modern natural language processing and also get an insight into cutting edge research in NLP. They will learn how to represent texts in shared representation spaces that enable semantic comparison for various NLP tasks. Upon successful completion of the course, the students will be well-equipped to solve practical NLP problems and to determine the optimal strategy to obtain best performance for a given task.Courses (type, number of weekly contact hours, language — if other than German)V (2) + Ü (2) + T (2) Module taught in: EnglishMethod of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral								
prox. 1 <u>9</u> Langua	5 minut ige of a	tes per candidate). ssessment: English						
credita	ble for	bonus						
Allocat	ion of j	olaces						
Additional information								
Workload								
300 h								
Teaching cycle								
Teaching cycle: every year, summer semester								
Referre	d to in	LPOI (examination regu	lations for teaching-o	degree programmes)				
Module	Module appears in							
Master	's degr	ee (1 major) Computation	al Humanities (2025)) -)				
inaster's degree (2 majors) Computational Humanities (2025)								