

Cognitive Science - Courses in the winter term 2023/24 by modules (as of August 9, 2023)

Cognitive (Neuro-)Psychology (Responsibility / Modulbeauftragte: Hohenberger)

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-CNP):

None. ("Introduction to Cognitive (Neuro-)Psychology" is offered in the summer term)

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-CNP):

Course	Lecturers	Mode	SWS	LP	Time
Cognitive Science in Cultural Perspective	Hohenberger	Hybrid	3	6	Wed, 9-12
Tools and the Mind	Hohenberger	Hybrid	3	6	Tue, 13-16
Atypical Language Development	Achimova	Offline	3	6	Fri, 12-15
Introduction to Sleep and Dreams	Pipa, Lüth	Offline	2	4	Block course, 5.2. – 9.2.
Modelling in Cognitive Neuroscience	Musslick	Hybrid	4	8	Tue, 12-14
Einführung in die Mensch-Computer Interaktion (VO)	Hamburg	Offline	2	4	Tue, 16-18

Optional Compulsory Modules Master (Wahlpflichtbereich Master; CS-MWP-CNP):

Course	Lecturers	Mode	SWS	LP	Time
Cognitive Science in Cultural Perspective	Hohenberger	Hybrid	3	6	Wed, 9-12
Tools and the Mind	Hohenberger	Hybrid	3	6	Tue, 13-16
Atypical Language Development	Achimova	Offline	3	6	Fri, 12-15
Introduction to Sleep and Dreams	Pipa, Lüth	Offline	2	4	Block course, 5.2. – 9.2.
Modelling in Cognitive Neuroscience	Musslick	Hybrid	4	8	Tue, 12-14
Einführung in die Mensch-Computer Interaktion (VO)	Hamburg	Offline	2	4	Tue, 16-18

Neuroscience (Responsibility / Modulbeauftragte: Brandt (CS-BP-NS), König (CS-BWP-NS and CS-MWP-NS))

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-NS):

Course	Lecturers	Mode	SWS	LP	Time
Functional Neuroanatomy	Bakota, Brandt	Offline	2	4	Fri, 14-16
Introduction to Neurobiology	Bakota, Brandt	Offline	2	4	Fri, 10-12

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-NS):

Course	Lecturers	Mode	SWS	LP	Time
Action and Cognition: Visual System (Lecture)	König, NN	Offline	2	4	Mon, 18-20
Action and Cognition: Higher Cognitive Functions (Seminar)	König, NN	Offline	2	4	Mon, 12-14
Journal Club "Spatial Cognition"	König, Schmidt	Offline	2	4	Wed, 10-12
Quest	König, Schmidt	Hybrid	2	4	Block course, Mon-Fri, 8-18 for 4 weeks
Modelling in Cognitive Neuroscience VO+UE	Musslick	Hybrid	4	8	Tue, 12-14

Optional Compulsory Modules Master (Wahlpflichtbereich Master; CS-MWP-NS):

Course	Lecturers	Mode	SWS	LP	Time
Action and Cognition: Visual System (Lecture)	König, NN	Offline	2	4	Mon, 18-20
Action and Cognition: Higher Cognitive Functions (Seminar)	König, NN	Offline / Hybrid	2	4	Mon, 12-14
Journal Club "Spatial Cognition"	König, Schmidt	Offline	2	4	Wed, 10-12
Quest	König, Schmidt	Hybrid	2	4	Block course, Mon-Fri, 8-18 for 4 weeks
Modelling in Cognitive Neuroscience VO+UE	Musslick	Hybrid	4	8	Tue, 12-14

Neuroinformatics (Responsibility / Modulbeauftragte: Pipa, Heidemann (CS-BWP-NI and CS-MWP-NI))

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-NI)

Course	Lecturers	Mode	SWS	LP	Time
Neuroinformatics	Nieters	Offline	6	12	Thu, 14-16; Fri, 10-12; Fri, 12-14

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-NI)

Course	Lecturers	Mode	SWS	LP	Time
Neuroinformatics	Nieters	Offline	6	12	Thu, 14-16; Fri, 10-12; Fri, 12-14
Computer Vision	Heidemann, Krumnack	Offline	6	12	Tue, 2-4; Wed, 10-12; Thu, 10-12
Machine Learning in Cognitive Computational Neuroscience	Kietzmann, Thorat	Hybrid	4	8	Tue, 10-12; Wed, 10-12
Deep learning for Natural Language Processing	Bruni	Hybrid	4	8	Tue, 12-14, Wed, 8-10
Implementing Artificial Neural Networks with TensorFlow	Bruni	Hybrid	4	8	Mon, 14-16, Wed, 12-14, Wed, 14-16
Advanced Natural Language Processing	Bruni	Offline	2	4	Block course, before SS
Deep Representation Learning	Krumnack, NN	Offline	2	4	Tue, 10-12
Reading Group: The Principles of Deep Learning Theory	Krumack, Abdelmoneim	Offline	2	4	Fri, 10-12
Introduction to Sleep and Dreams	Pipa, Lüth	Offline	2	4	Block course, 5.2. – 9.2.

Optional Compulsory Modules Master (Wahlpflichtbereich Master; CS-BWP-NI)

Course	Lecturers	Mode	SWS	LP	Time
Machine Learning in Cognitive Computational Neuroscience	Kietzmann, Thorat	Hybrid	4	8	Tue, 10-12; Wed, 10-12
Computer Vision	Heidemann, Krumnack	Offline	6	12	Tue, 14-16; Wed, 10-12; Thu, 10-12
Deep learning for Natural Language Processing	Bruni	Hybrid	4	8	Tue, 12-14, Wed, 8-10
Implementing Artificial Neural Networks with TensorFlow	Bruni	Hybrid	4	8	Mon, 14-16, Wed, 12-14, Wed, 14-16
Advanced Natural Language Processing	Bruni	Offline	2	4	Block course, before SS
Deep Representation Learning	Krumnack, NN	Offline	2	4	Tue, 10-12
Reading Group: The Principles of Deep Learning Theory	Krumack, Abdelmoneim	Offline	2	4	Fri, 10-12
Microcosm.ai - Research in the Field of Emergence in MAS with RL	Bruni, Mayer	Offline	2	4	Wed, 10-12
Advanced Machine Learning	Heidemann	Offline	2	4	Thu, 12-14
Introduction to Sleep and Dreams	Pipa, Lüth	Offline	2	4	Block course, 5.2. – 9.2.
Auditory Display	Heidemann	Offline	2	4	Tue, 16-18

(Computational) Linguistics (Responsibility / Modulbeauftragte: Bruni, Gotzner)

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-CL):

None. („Introduction to Computational Linguistics“ is offered in the summer term)

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-CL):

Course	Lecturers	Mode	SWS	LP	Time
Psychosemantics	Gotzner	Hybrid	4	6	Tue, 14-18
Inventing a new language	NN, Gotzner	Hybrid	2	4	Block course, March
Atypical Language Development	Achimova	Offline	3	6	Fri, 12-15
Deep learning for Natural Language Processing	Bruni	Hybrid	4	8	Tue, 12-14, Wed, 8-10
Implementing Artificial Neural Networks with TensorFlow	Bruni	Hybrid	4	8	Mon, 14-16, Wed, 12-14, Wed, 14-16
Advanced Natural Language Processing	Bruni	Offline	2	4	Block course, before SS

Optional Compulsory Modules Master (Wahlpflichtbereich Master; CS-MWP-CL):

Course	Lecturers	Mode	SWS	LP	Time
Psychosemantics	Gotzner	Hybrid	4	6	Tue, 14-18
Inventing a new language	NN, Gotzner	Hybrid	2	4	Block course, March
Atypical Language Development	NN	Offline	3	6	Fri, 12-15
Deep learning for Natural Language Processing	Bruni	Hybrid	4	8	Tue, 12-14, Wed, 8-10
Implementing Artificial Neural Networks with TensorFlow	Bruni	Hybrid	4	8	Mon, 14-16, Wed, 12-14, Wed, 14-16
Advanced Natural Language Processing	Bruni	Offline	2	4	Block course, before SS

Artificial Intelligence (Responsibility / Modulbeauftragter: Kühnberger)

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-AI):

None. („Introduction to AI and Logic Programming“ is offered in the summer term)

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-AI)

Course	Lecturers	Mode	SWS	LP	Time
Reading Group: The Principles of Deep Learning Theory	Krumack, Abdelmoneim	Offline	2	4	Fri, 10-12
Artificial Intelligence and the Web	Thelen	Hybrid	2	4	Fri, 12-14
Artificial Intelligence in Public Discourse	Thelen	Online	2	4	Fri, 14-16
Methods of AI (Lecture)	Kühnberger, Abdelmoneim	Hybrid	2	4	Fri, 14-16
Methods of AI (Seminar)	Kühnberger, Abdelmoneim	Hybrid	2	4	Thu, 14-16
Cognitive Human-Computer Interaction	Kühnberger	Hybrid	2	4	Thu, 18-20
Deep learning for Natural Language Processing	Bruni	Hybrid	4	8	Tue, 12-14, Wed, 8-10
Implementing Artificial Neural Networks with TensorFlow	Bruni	Hybrid	4	8	Mon, 14-16, Wed, 12-14, Wed, 14-16
Advanced Natural Language Processing	Bruni	Offline	2	4	Block course, before SS
Machine Learning in Cognitive Computational Neuroscience	Kietzmann, Thorat	Hybrid	4	8	Tue, 10-12; Wed, 10-12

Optional Compulsory Modules Master (Wahlpflichtbereich Master; CS-MWP-AI)

Course	Lecturers	Mode	SWS	LP	Time
Reading Group: The Principles of Deep Learning Theory	Krumack, Abdelmoneim	Offline	2	4	Fri, 10-12
Artificial Intelligence and the Web	Thelen	Hybrid	2	4	Fri, 12-2
Artificial Intelligence in Public Discourse	Thelen	Online	2	4	Fri, 14-16
Methods of AI (Lecture)	Kühnberger, Abdelmoneim	Hybrid	2	4	Fri, 14-16
Methods of AI (Seminar)	Kühnberger, Abdelmoneim	Hybrid	2	4	Thu, 14-16
Cognitive Human-Computer Interaction	Kühnberger	Hybrid	2	4	Thu, 18-20
Deep learning for Natural Language Processing	Bruni	Hybrid	4	8	Tue, 12-14, Wed, 8-10
Implementing Artificial Neural Networks with TensorFlow	Bruni	Hybrid	4	8	Mon, 14-16, Wed, 12-14, Wed, 14-16
Advanced Natural Language Processing	Bruni	Offline	2	4	Block course, before SS
Machine Learning in Cognitive Computational Neuroscience	Kietzmann, Thorat	Hybrid	4	8	Tue, 10-12; Wed, 10-12
Auditory Display	Heidemann	Offline	2	4	Tue, 16-18

Philosophy (Responsibility / Modulbeauftragte: Stephan, Walter)

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-PHIL)

Course	Lecturers	Mode	SWS	LP	Time
Introduction to Logic and Critical Thinking	Hörzer	Offline	4	6	Wed, 10-12

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-PHIL)

Course	Lecturers	Mode	SWS	LP	Time
Introduction to Aristotle's Ethics	Mühlhoff	Hybrid	2	4	Tue, 14-16
Marxist Feminism & Black Marxism	Schütze	Offline	2	4	Tue, 12-14
Feminist Ethics	Lindemann	Offline	2	4	Block (Oct 9-13)
Principles of Biomedical Ethics (Beauchamp, Childress)	Meyer	Offline	4	8	Fri, 8-12
Vernunft, Gefühl, das Gute	Meyer	Offline	2	4	Wed, 10-12
Forschungsseminar: Wirklichkeit - Kritik - Verstehen	von Maur	Offline	4	8	Tue, 14-18
Reduction and Emergence	Loock	Offline	2	4	Thu, 14-16
Boy Meets Girl - Deconstructing Myths about Intimate Relationships	Walter	Offline	2	4	Wed, 10-12
Objective and Subjective Perspectives on Mind, Knowledge, Ethics, Life, and Death (Intensive course)	Meyer	Offline	3	6	Tue, 9-12
Independent Study Project: Think like a Feminist (*)	Walter	Hybrid	3	6	Thu, 9-12
Sexualethik in der Philosophiegeschichte von Antike bis (Post-)Moderne	Buning	Offline	2	4	Mo, 10-12
Theseus, Trans* und Teleportation: Themen der Personalen Identität	Brinz	Offline	2	4	Mi, 10-12
Philosophical Issues surrounding ChatGPT & Co.	Lowé	Offline	2	4	Do, 10-12
Familienethik	Boshammer	Offline	2	4	Di, 10-12

Fricker: Epistemische Ungerechtigkeit	Boshammer	Offline	2	4	Di, 14-16
Einführung in die Ethik (VO)	Boshammer	Offline	2	4	Mi, 10-12

(*) Upon personal invitation only!

Optional Compulsory Modules Master (Wahlpflichtbereich Master; CS-MWP-PHIL)

Course	Lecturers	Mode	SWS	LP	Time
Introduction to Aristotle's Ethics	Mühlhoff	Hybrid	2	4	Tue, 14-16
Colloquium Ethics and Critical theories of Artificial Intelligence	Mühlhoff	Hybrid	3	4	Wed, 9-12
Marxist Feminism & Black Marxism	Schütze	Offline	2	4	Tue, 12-14
Feminist Ethics	Lindemann	Offline	2	4	Block (Oct 9-13)
Principles of Biomedical Ethics (Beauchamp, Childress)	Meyer	Offline	4	8	Fri, 8-12
Vernunft, Gefühl, das Gute	Meyer	Offline	2	4	Wed, 10-12
Forschungsseminar: Wirklichkeit - Kritik - Verstehen	von Maur	Offline	4	8	Tue, 14-18
Reduction and Emergence	Loock	Offline	2	4	Thu, 14-16
Boy Meets Girl - Deconstructing Myths about Intimate Relationships	Walter	Offline	2	4	Wed, 10-12
Independent Study Project: Think like a Feminist (*)	Walter	Hybrid	3	6	Thu, 9-12
Sexualethik in der Philosophiegeschichte von Antike bis (Post-)Moderne	Buning	Offline	2	4	Mo, 10-12
Theseus, Trans* und Teleportation: Themen der Personalen Identität	Brinz	Offline	2	4	Mi, 10-12
Philosophical Issues surrounding ChatGPT & Co.	Lowe	Offline	2	4	Do, 10-12
Familienethik	Boshammer	Offline	2	4	Di, 10-12
Fricker: Epistemische Ungerechtigkeit	Boshammer	Offline	2	4	Di, 14-16
Einführung in die Ethik (VO)	Boshammer	Offline	2	4	Mi, 10-12

(*) Upon personal invitation only!

Methods of Cognitive Science (Responsibility / Modulbeauftragter: Hörzer (temporarily))

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-MCS)

Course	Lecturers	Mode	SWS	LP	Time
Introduction to Statistics and Data Analysis	Achimova	Hybrid	6	8	Thu, 16-19; Fri, 9-12
Statistik und Datenanalyse I (alternative to "Introduction to Statistics and Data Analysis")	Staufenbiel, Molitor	Offline	6	8	Mon, 16-18, Tue, 8-10; Wed, 8-10, Wed, 10-12, Fri, 8-10

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-MCS)

Course	Lecturers	Mode	SWS	LP	Time
Anleitung zum wissenschaftlichen Arbeiten	Meyer	Offline	3	6*	Wed, 14-18
Academic Writing in the Empirical Domains of Cognitive Science	Hohenberger	Hybrid	2	4	Thu, 14-16
Implementing Artificial Neural Networks with TensorFlow	Bruni	Offline	4	8	Mon, 14-16, Wed, 12-14, Wed, 14-16
Advanced Natural Language Processing	Bruni	Offline	2	4	
Machine Learning in Cognitive Computational Neuroscience	Kietzmann, Thorat	Hybrid	4	8	Tue, 10-12; Wed, 10-12
Preprocessing and analyzing EEG signals	König, Nolte	Offline	2	4	5.2. - 9.2.2024

* 4LP for the Methods module only (+2LP for the electives)

Informatik (Modulbeauftragter: Heidemann)

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-INF)

Course	Lecturers	Mode	SWS	LP	Time
Informatik für Anwendende	Brinkmeyer	Offline	6	9	Mon, 14-16; Tue, 14-16
Einführung in die Programmierung	Bökler	Offline	6	9	Mon, 14-16; Tue, 14-16

Neuregelung Verflechtungsbereich Informatik: Entweder „Informatik für Anwender“ (für Studierende, die CS-BWP-INF nicht wählen wollen) oder „Einführung in die Programmierung“, nur letztere Veranstaltung ist mit „Einführung in die Algorithmik“ (wird im Sommersemester angeboten, für CS-BWP-INF) kombinierbar.

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-INF)

Course	Lecturers	Mode	SWS	LP	Time
Computer Vision	Heidemann, Krumnack	Offline	6	12	Tue, 14-16; Wed, 10-12; Thu, 10-12

Mathematik (Modulbeauftragter: Kunis)

Compulsory Modules Bachelor (Pflichtbereich Bachelor; CS-BP-MAT)

Course	Lecturers	Mode	SWS	LP	Time
Mathematik für Anwender I	Brenner	Offline	6	9	Mon, 8-10, Fri, 12-14; Thu, 14-16, Fri, 12-14
Analysis I	Kunis	Offline	6	9	Tue, 10-12, Thu, 10-12; Thu, 12-14, Fri, 10-12
Lineare Algebra I	Spitzweck	Offline	6	9	Mon, 10-12, Wed, 10-12; Thu, 14-16, Fri, 12-14

Optional Compulsory Modules Bachelor (Wahlpflichtbereich Bachelor; CS-BWP-MAT)

Course	Lecturers	Mode	SWS	LP	Time
Analysis I	Kunis	Offline	6	9	Tue, 10-12, Thu, 10-12; Thu, 12-14, Fri, 10-12
Lineare Algebra I	Spitzweck	Offline	6	9	Mon, 10-12, Wed, 10-12; Thu, 14-16, Fri, 12-14

Study Project (Responsibility / Modulbeauftragter: Hörzer)

Compulsory Modules Master (Pflichtbereich Master; CS-MP-SP)

Course	Lecturers	Mode	SWS	LP	Time
Data Ethics Outreach Lab	Mühlhoff	Hybrid	6	12	Wed, 14-17
Why do the Folk believe that Free Will is an Illusion (Part II)	Walter	Hybrid	6	12	Tue, 16-18
The secret lives of adjectives - The Psycholinguistics of Adjective Use (Part II)	Tourtour	Hybrid	6	12	
Human-A and EEG	König, Nolte, Sanchez	Offline	6	12	Tue, 14-16
Sensory Augmentation and Grasping Movements: Making Blind People Grasp (Part II)	König, NN	Offline	6	12	Mon, 10-12
Emergent Behaviors in a Multi-Agent System with Reinforcement Learning	Bruni, Mayer	Offline	6	12	Tue, 15-18; Thu, 15-18
Promoting your Well-Being - Theory and Practice (Part III)	Krumnack, NN	Online	6	12	Mon, 10-12
The Mentality of Apes by Wolfgang Köhler: A century later (Part III)	Pika	Offline	6	12	Tue, 15-16
Dyadic eye tracking in virtual reality to investigate visual interaction (Part I)	König, Nolte, J. Walter	Offline	6	12	Mon, 14-16
Bed of the Future (Part II)	Appel	Offline	6	12	Fri, 10-12

Interdisciplinary Courses (Responsibility / Modulbeauftragter: Hörzer)

Compulsory Modules Master (Pflichtbereich Master; CS-MP-IDC)

Course	Lecturers	Mode	SWS	LP	Time
Data Ethics Outreach Lab (Begleitseminar)	Mühlhoff	Hybrid	4	6	Wed, 14-17
Boy Meets Girl - Deconstructing Myths about Intimate Relationships	Walter	Offline	2	4	Wed, 10-12
The secret lives of adjectives: The Psycholinguistics of adjective use (Part II) (Begleitseminar)	Tourtouri	Hybrid	4	6	
Practical Cognitive Science Communication	Thelen, NN	Hybrid	4	8	Tue, 10-14
Preprocessing and analyzing EEG signals	König, Nolte	Offline	2	4	5.2. - 9.2.2024
Machine Learning in Cognitive Computational Neuroscience	Kietzmann, Thorat	Hybrid	4	8	Tue, 10-12; Wed, 10-12
Quest	König, Schmidt	Hybrid	2	4	Block course, Mon-Fri, 8-18 for 4 weeks
Artificial Intelligence in Public Discourse	Thelen	Online	2	4	Fri, 14-16
The Mentality of Apes by Wolfgang Köhler: A century later (Part III)	Pika	Offline	4	6	Tue, 15-16
Sensory Augmentation and Grasping Movements: Making Blind People Grasp (Begleitseminar)	König, NN	Offline	4	8	Mon, 10-12
Emergent Behaviors in a Multi-Agent System with Reinforcement Learning	Bruni, Mayer	Offline	6	12	Tue, 15-18; Thu, 15-18
Evaluation of Cognitive Enhancement Technologies: Can Technology Improve Cognitive Skills	Schöning	Offline	2	4	Mon, 10-12
AI and Education – Explaining what ChatGPT is (not)	von Maur	Offline	2	4	Tue, 12-14
Lab Rotation	NN	Offline	6	12	

Electives (Responsibility / Modulbeauftragte: Hörzer; Stephan & Walter (CS-BW-IWS only))

This list contains courses that are assigned to the electives only. Nonetheless, other courses can usually be assigned to the electives as well.

Electives Bachelor (profilbildender Wahlbereich; CS-BW)

Course	Lecturers	Mode	SWS	LP	Time
Reading Club Affectivity	Hörzer, Walter	Offline	2	2	Tue, 18-20
Language and Communication Colloquium	Bruni, Gotzner, Hohenberger, Pika	Offline	1	0	Wed, 14-15

Electives Master (profilbildender Wahlbereich; CS-MW)

Course	Lecturers	Mode	SWS	LP	Time
Reading Club Affectivity	Hörzer, Walter	Offline	2	2	Tue, 18-20
Language and Communication Colloquium	Bruni, Gotzner, Hohenberger, Pika	Offline	1	0	Wed, 14-15

Integrative Compulsory Element in the Electives Bachelor (Integratives Pflichtelement im Wahlbereich Bachelor; CS-BW-IP)

Course	Lecturers	Mode	SWS	LP	Time
Foundations of Cognitive Science	Hohenberger	Hybrid	2	3Co	Fri, 12-14

Integrative Optional Element in the Electives Bachelor (Integratives Wahlelement „Anleitung zum wissenschaftlichen Arbeiten“ im Wahlbereich Bachelor; CS-BW-IWS)

Course	Lecturers	Mode	SWS	LP	Time
Anleitung zum wissenschaftlichen Arbeiten	Meyer	Offline	3	6	Wed, 14-18