Bachelor and Master Computer Science
Minor "Artificial Intelligence in Biomedical Engineering" (AIBE)

Please note:
The AIBE minor for the BSc CS will be terminated. Students who have already started it can still complete it, but new registrations are no longer possible.

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Contact:
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BSc/MSc	Course Title	Acronym	Lecturer/s	Lab/s	Language	Type	WS/SS	SWS	ECTS	Exam Details
Module Title										
AI in medical robotics										
MSc	AI in Medical Robotics	AIMedRob	Mathis-Ullrich	SPARC	Eng	Lecture + Exercises	WS	2+2	5	written exam, 60min
Algorithmische Bioinformatik										
MSc	Algorithmic Bioinformatics	ALGBIOINF	Blumenthal	BIONETS	Eng	Lecture + Exercises	WS	2+2	5	oral exam, 30min
Applied Neural Engineering: Brain and Spine Neurosurgery and Human/Machine Interfaces – not offered in WS 24/25										
MSc	Applied Neural Engineering: Brain and Spine Neurosurgery and Human/Machine Interfaces	ANeuro	Del Vecchio/ Kinfe	N-SQUARED & others	Eng	Main Seminar	WS	2	5	seminar performance, assessed
Biomedizinische Signalanalyse										
BSc/MSc	Biomedizinische Signalanalyse/ Biomedical Signal Analysis	BioSig	Eskofier/Jäger /Krauß	MAD	Eng	Lecture + Exercises	WS	2+2	5	written exam, 90min
Catching your eyes: AI-driven modeling and analysis of eye-tracking data										
MSc	Catching your eyes: AI-driven modeling and analysis of eye-tracking data	ETS	Zanca	MAD	Eng	Main Seminar	SS	2	2,5	seminar performance, assessed
Cognitive Neuroscience for AI Developers										
MSc	Cognitive Neuroscience for AI Developers	CNAID	Kist/Krauß/ Maier/Schilling	ANKI & LME – Pattern Recognition Lab & ExpHNO – Experimental Otorhinolaryngology	Eng	Lecture	SS	4	5	written exam, 90min
Computational Magnetic Resonance Imaging										
MSc	Computational Magnetic Resonance Imaging	Computational MRI	Knoll	CIL	Eng	Lecture + Exercises	WS	2+2	5	oral exam, 30min
Computational Neurotechnology / Numerische Neurotechnologie										
BSc/MSc	Computational Neurotechnology	COMPNEURO	Reichenbach	NEUROTECH	Eng	Lecture + Exercises	SS	2+2	5	written exam, 60min
Human-Robot Co-Adaptation										
MSc	Human-Robot Co-Adaptation	HRC	Castellini/ Thürauf	AIROB	Eng	Lecture + Exercises	WS	2+2	5	written exam, 60min
Intent Detection and Feedback										

MSc	Intent Detection and Feedback	IDF	Castellini/ Thürauf	AIROB	Eng	Lecture + Exercises	SS	2+2	5	written exam, 60min
Interfacing the Neuromuscular system: Applications for Human/Machine Interfaces and Neurophysiology										
BSc/MSc	Interfacing the Neuromuscular system: Applications for Human/Machine Interfaces and Neurophysiology	INS	Del Vecchio	N-SQUARED	Eng	Lecture	SS	2	5	written exam, 60min
Movement Neuroscience: Connections between Brain and Muscles in Humans										
MSc	Movement Neuroscience: Connections between the Brain and Muscles in Humans	MN	Del Vecchio	N-SQUARED	Eng	Lecture	WS	3	5	written exam, 60min
Network Medicine										
MSc	Network Medicine	NETMED	Blumenthal	BIONETS	Eng	Main Seminar	WS	2	5	seminar performance, assessed
Neurotechnology Project										
MSc	Neurotechnology Project		Reichenbach	NEUROTECH	Eng	Project	WS/SS	8	10	project work
Projekt Biomedical Network Science										
MSc	Projekt Biomedical Network Science	BIONETS	Blumenthal	BIONETS	Eng	Project	WS/SS	4	10	project work
Rehabilitation and Assistive Robotics										
MSc	Rehabilitation and Assistive Robotics	RAR	Castellini/ Thürauf	AIROB	Eng	Lecture + Exercises	SS	2+2	5	written exam, 60min
Seminar Biosignals in Rehabilitation Robotics										
MSc	Seminar Biosignals in Rehabilitation Robotics	SEM-BRR	Egle	AIROB	Eng	Main Seminar	WS/SS	4	5	seminar performance, assessed
Seminar Fantastic Datasets and where to find them										
MSc	Fantastic datasets and where to find them	FANDAT	Kist	ANKI	Eng	Main Seminar	WS/SS	2	5	seminar performance, assessed
Surgical Technologies Innovation										
MSc	Surgical Technologies Innovation	STI	Mathis-Ullrich	SPARC	Eng	Lecture + Exercises	WS	4	5	modular exam (report, presentation)
Detailed information is available on Campo. Please take note of the data in the respective course catalog and module handbook.										