

Minor "Artificial Intelligence in Biomedical Engineering" (AIBE) for the Bachelor and Master in Computer Science					Contact: Marlene Reuschel: marlene.reuschel@fau.de or Thomas Seel: thomas.seel@fau.de				
Module for ...	Module-Title	Lecturer	Language	Type	WS / SS	SWS	ECTS	Exam-Details	
<b>AIMI – Artificial Intelligence in Medical Imaging Lab</b>									
Master	Projekt Intraoperative Imaging and Machine Learning (IIML)	Breiningner	English	Project	WS	4	10	project work	
<b>HEX – Chair of Human-Centered Computing and Extended Reality</b>									
Master	Advanced Topics in Human-Computer Interaction	Roth	English	Seminar	WS	4	5	Seminar performance, assessed	
	Virtual and Augmented Reality	Roth	English	Lecture /Project	SS23+	8	10	Lecture, project work, part exam	
	Virtual Reality in Neuroscience	Roth	English	Seminar	SS23+	4	5	Lecture, project work, part exam	
	Exergames	Roth, Morschheuser	English	Lecture /Project	WS21/22	4	5	Lecture, project work, part exam	
<b>ISS – Chair of Intelligent Sensorimotor Systems</b>									
Bachelor or Master	AI in Medical Robotics	Seel	English	Lecture	WS	4	5	written exam, 60min	
	Introduction to Explainable Machine Learning	Seel	English	Lecture	SS	4	5	written exam, 60min	
	Artificial Motor Learning	Seel	English	Lecture	SS	4	5	written exam, 60min	
	Inertial Sensor Fusion	Seel	English	Lecture	WS	4	5	written exam, 60min	
	AI in Medical Robotics	Seel	English	Lectures +Exercises	WS	4	5	written exam, 60min	
	Intelligent Sensorimotor Systems Lab	Seel	English	Project	WS+SS	8	10	project work, presentation	
<b>MaD – Chair of Machine Learning &amp; Data Analytics</b>									
Bachelor or Master	Bewegungsanalyse und biomechanische Grenzgebiete (BABG)	Koelewijn	German	Lecture	WS+SS	2	2,5	written exam, 60min	
	The why and how of human gait simulations (HGS)	Koelewijn	English	Seminar	WS	2	2,5	seminar performance, assessed	
	Legged Locomotion of Robots (LLR)	Koelewijn	English	Seminar	SS	2	2,5	seminar performance, assessed	
	Legged Locomotion of Robots Deluxe (LLR+)	Koelewijn	English	Seminar +Project	SS	4	5	seminar + project performance, assessed	
Master	Catching your eyes: AI-driven modeling and analysis of eyetracking data (ETS)	Zanca	English	Seminar	SS	2	2,5	seminar performance, assessed	
	A look inside the human body - gait analysis and simulation (GAS)	Koelewijn	English	Lecture	WS	2	2,5	oral exam, 30min	
	Gait analysis and simulation+ (GAS+)	Koelewijn	English	Lecture +exercise	WS	4	5	written exam, 60min	
<b>NeuroTech – Chair of Sensory Neuroengineering</b>									
Bachelor or Master	Computational Neurotechnology	Reichenbach	English	Lecture +Exercises	SS	2+2	5	written exam, 60min	
Master	Neurotechnology Project	Reichenbach	English	Project	WS+SS	8	10	report+ presentation	
<b>NSquared – Chair of Neuromuscular Physiology and Neural Interfacing</b>									
Bachelor or Master	Interfacing the Neuromuscular System	Del Vecchio	English	Lecture	SS	3	5	oral exam, 30min	
Master	Applied Neuroengineering	Del Vecchio	English	Seminar +Project	WS	4	10	seminar, lecture + project performance	
	Movement Neuroscience	Del Vecchio	English	Lecture	WS	2+1	5	oral exam, 30min	
<b>MediRob – Chair of Medical Robotics</b>									
Master	Human-Robot Co-Adaptation (HRC)	Castellini	English	Lectures +Exercises	WS	4	5	written exam, 60min	
	Intent Detection and Sensory Feedback (IDF)	Castellini	English	Lectures +Exercises	SS	4	5	written exam, 60min	
	Rehabilitation and Assistive Robotics (RAR)	Castellini	English	Lectures +Exercises	SS	4	5	written exam, 60min	
	Seminar Biosignals in Rehabilitation Robotics (BRR)	Egle	English	Seminar	WS+SS	4	5	report+ presentation	
	Seminar Learning and Interaction in Medical Robotics (IMR)	Sierotowicz	English	Seminar	WS+SS	4	5	report+ presentation	
	Seminar Robotics for the Lower Limb (RLL)	Scheidl	English	Seminar	WS+SS	4	5	report+ presentation	
	Upper-Limb Prosthetics (ULP)	Castellini	English	Lectures +Exercises	WS	4	5	written exam, 60min	