

Master Degree Program Robotics and Autonomous Systems (Wintersemester 2019/2020)

1. Semester (30 KP)	2. Semester (30 KP)	3. Semester (30 KP)	4. Semester (30 KP)
RO4100-KP08 Robot Learning 8 KP (4V + 2Ü)			
RO4000-KP12 Autonomous Systems 12 KP (4V + 4Ü)		RO5000-KP12 Internship Robotics and Autonomous Systems 1 12 KP (12P)	
RO4300-KP08 Machine Learning and Computer Vision 8 KP (4V + 2Ü)			
Specialization Course 12 KP		RO5001-KP12 Internship Robotics and Autonomous Systems 2 12 KP (12P)	
Elective Courses 16 KP			RO5990-KP30 Master Thesis Robotics and Autonomous Systems 30 KP
Interdisciplinary Field 4 KP		PS5000-KP06 Student Conference 6 KP (4S)	
<b>10 Examinations*</b>		<b>3 Examinations</b>	<b>1 Examination</b>
Contact hours: V: Lecture / Ü: Laboratory / P: Internship / S: Seminar			KP: Credit points / ECTS credits
<b>Compulsory module</b> Robotics und Autonomous Systems	<b>Specialization</b>	<b>Elective</b> (subject-specific)	<b>Elective</b> (interdisciplinary)

\*The number of examinations varies according to the choice of modules.

## Master Degree Program Robotics and Autonomous Systems (Wintersemester 2019/2020)

### Specialization modules

RO5100-KP12	Medical Robotics	4V+2Ü+2S
RO5200-KP12	Bio-inspired Robotics	4V+2Ü+2S
RO5500-KP12	Autonomous Vehicles	4V+2Ü+2S
RO4500-KP12	Advanced Control & Estimation	4V+2Ü+2S
CS4503-KP12	Ambient Computing	3V+2S+3P
CS4504-KP12	Cyber Physical Systems	4V+2Ü+2S

### Elective modules

### Language

RO4290-KP04	Current Issues Robotics & Autonom.	2V+1Ü	EN
CS4130-KP06	Information Systems	2V+2Ü	DE
CS4150-KP06	Distributed Systems	2V+1Ü	DE
CS4170-KP06	Parallel Computer Systems	2V+2Ü	EN
CS5170-KP04	Hardware/Software Co-Design	2V+1Ü	EN
CS4405-KP04	Neuroinformatics	2V+1Ü	DE
CS4220-KP04	Pattern Recognition	2V+1Ü	DE
RO5100-KP08	Medical Robotics	4V+1Ü	EN
RO5200-KP08	Bio-inspired Robotics	4V+2Ü	EN
RO5500-KP08	Autonomous Vehicles	4V+2Ü	EN
RO4500-KP08	Advanced Control & Estimation	4V+2Ü	EN
CS4374-KP06	Medical Deep Learning	2V+2Ü	EN
RO5801-KP04	Advanced Topics in Robotics	2V+1Ü	EN
CS5204-KP04	Artificial Intelligence 2	2V+1Ü	EN