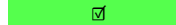


CURRICULUM M.SC. ARTIFICIAL INTELLIGENCE

DISTANCE LEARNING, 120 ECTS CREDITS

Semester			Module	Course Code	Course	ECTS credits	Type of Exam
FT	PT I	PT II					
1. Semester	1. Semester	1. Semester	Artificial Intelligence	DLMAIAI01	Artificial Intelligence	5	Exam
			Programming with Python	DLMDSPWP01	Programming with Python	5	Written Assignment
			Advanced Mathematics	DLMDSAM01-01	Advanced Mathematics	5	Exam
	2. Semester	2. Semester	Advanced Statistics	DLMDSAS01	Advanced Statistics	5	Advanced Workbook
			Machine Learning	DLMDSML01	Machine Learning	5	Exam
			Project: AI Use Case	DLMAIPAIUC01	Project: AI Use Case	5	Portfolio
2. Semester	3. Semester	3. Semester	Advanced Research Methods	DLMARM01-01	Advanced Research Methods	5	Written Assignment
			Deep Learning	DLMDSL01	Deep Learning	5	Bitte wählen...
	4. Semester	4. Semester	Continual Learning with Neural Networks	DLMAICLNN01	Continual Learning with Neural Networks	5	Bitte wählen...
			Seminar: AI and Society	DLMAISAI01	Seminar: AI and Society	5	Research Essay
			ELECTIVES A*		e.g. NLP and Computer Vision	10	
3. Semester	4. Semester	4. Semester	ELECTIVES B*		e.g. Computer Vision for Autonomous Systems	10	
			ELECTIVES C		Internship or modules to choose	5	
	5. Semester	5. Semester	ELECTIVES C		Internship or modules to choose	5	
			ELECTIVES C		Internship or modules to choose	5	
4.	6.	8.	Master Thesis	MMTHE01	Master Thesis	27	Master Thesis
				MMTHE02	Thesis Defense	3	Presentation
Total			120 ECTS credits				



Information about electives C:
Decide at the beginning between an internship at a company or modules from electives C. You will complete the internship with a practical reflection. If you decide on the modules from electives C, all modules from this area must be completed. Mixed forms of internship and compulsory electives C are not possible.



* Electives: Two modules per elective to choose from, each elective module can only be chosen once.

FT: Full-Time, 24 months
PT I: Part-Time I, 36 months
PT II: Part-Time II, 48 months

Electives A: Electives B: Electives C:

Software Engineering for Data Intensive Sciences
NLP and Computer Vision
Reinforcement Learning
Inference and Causality
Explainable and Interpretable Machine Learning Models
Seminar: Current Topics in AI
Natural Language Processing
Project: Prompt Engineering
Voice Assistants
Image Processing and Low Level Vision
Mid-Level Vision and Video
Project: Generative Deep Learning
Corporate Governance of IT, Compliance, and Law

Fraud Detection FinTechs
AI in Production
Project: Industrial Internet of Things
Introduction to AI in E-Commerce and Marketing
Corporate Governance of IT, Compliance, and Law
AI in Marketing and Analytics
Personalization and Recommender Systems
Demand Forecast and Inventory Control
Artificial Intelligence in Procurement
Concepts of Artificial Intelligence in Supply Chain Management
Multi-Agent Systems
Robo Advisory
NLP in Education
NLP for Accessibility
AI in Healthcare
AI in Medical Imaging and Diagnostics
Medical NLP
Medical Robotics and Devices
High-Level Vision
Project: Computer Vision
Industrial and Mobile Robots
Project: Collaborative Robotics
Architectures of Self-Driving Vehicles
Case Study: Localization, Motion Planning and Sensor Fusion
Functional Security
Computer Vision for Autonomous Systems
Industrial Automation
Advanced NLP and Computer Vision
Project: NLP and Computer Vision
Data Engineering
Project: Data Engineering
IT Project Management
Project: Technical Project Planning
User Interface and Experience
Project: Human Computer Interaction
International IT Law
Seminar: Legal Framework for IT-Security

Internship: Master AI, Machine Learning and Data Science
or
Start Up Lab
Case Study: Model Engineering
Use Case and Evaluation