

CURRICULUM M.SC. ARTIFICIAL INTELLIGENCE

DISTANCE LEARNING, 120 ECTS credits

Semester			Module	Course Code	Course	ECTS credit	Type of Exam
FT	PT I	PT II					
1. Semester	1. Semester	1. Semester	Artificial Intelligence	DLMAIAI01	Artificial Intelligence	5	Exam
			Advanced Mathematics	DLMDSAM01	Advanced Mathematics	5	Exam
			Use Case and Evaluation	DLMDSUCE01	Use Case and Evaluation	5	Oral Assignment
	2. Semester	2. Semester	Seminar: AI and Society	DLMAISAI01	Seminar: AI and Society	5	Research Essay
			Advanced Statistics	DLMDSAS01	Advanced Statistics	5	Advanced Workbook
			Project: AI Use Case	DLMAIPAIUC01	Project: AI Use Case	5	Portfolio
2. Semester	3. Semester	3. Semester	Programming with Python	DLMDSPWP01	Programming with Python	5	Written Assignment
			Machine Learning	DLMDSML01	Machine Learning	5	Exam
			Deep Learning	DLMDSL01	Deep Learning	5	Oral Assignment
	4. Semester	4. Semester	NLP and Computer Vision	DLMAINLPCV01	NLP and Computer Vision	5	Oral Assignment
			Inference and Causality	DLMAIAC01	Inference and Causality	5	Advanced Workbook
			Reinforcement Learning	DLMAIRIL01	Reinforcement Learning	5	Written Assignment
3. Semester	5. Semester	5. Semester	Software Engineering for Data Intensive Sciences	DLMDSEDIS01	Software Engineering for Data Intensive Sciences	5	Oral Assignment
			Seminar: Current Topics in AI	DLMAISCTAI01	Seminar: Current Topics in AI	5	Research Essay
	6. Semester	6. Semester	ELECTIVE A*		e.g. Technical Project Lead	10	
			ELECTIVE B*		e.g. Medical NLP and Medical Robotics	10	
4.	6.	8.	Master Thesis	MMTHE01 MMTHE02	Master Thesis Colloquium	27 3	Master Thesis Thesis Defense
Total			120 ECTS credits				



You've already planned out exactly how your course schedule should look? Wonderful! The IU International University of Applied Sciences offers you the flexibility to choose any module you like from any semester. You can work on a number of modules at the same time or one by one.

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

Possible Majors	Elective A	Elective B
Artificial Intelligence in FinTech	Artificial Intelligence in FinTech**	Robo Advisory and AI in FinTech**
Artificial Intelligence in Automotive	Applied Autonomous Driving	Functional Security and Computer Vision for Autonomous Systems**
Artificial Intelligence in Supply Chain Management	Artificial Intelligence in Supply Chain Management**	AI and its Application in Demand Forecast and Procurement**
Artificial Intelligence in Healthcare	AI in Healthcare and Medical Imaging**	Medical NLP and Medical Robotics**
Artificial Intelligence in Marketing and E-Commerce	AI in E-Commerce, Marketing and Demand Forecast**	AI for Analytics, Personalization and Recommender Systems**
Artificial Intelligence in Production	Industrial AI**	Industrial Automation and Computer Vision for Autonomous Systems
Artificial Intelligence and NLP	Natural Language Processing and Voice Assistants**	NLP and Innovative Technologies in Education**
Artificial Intelligence and Computer Vision	Foundational Computer Vision**	Cognitive Computer Vision**

All available Electives	Elective A	Elective B
	UI/UX Expert	Management
	Technical Project Lead	Sales, Pricing and Brand Management
	AI Specialist	Consumer Behaviour and Research
	Data Engineer	Corporate Finance
	Artificial Intelligence in FinTech**	Innovate and Change
	Applied Autonomous Driving**	Advanced Robotics 4.0
	Artificial Intelligence in Supply Chain Management**	Robo Advisory and AI in FinTech**
	AI in Healthcare and Medical Imaging**	Functional Security and Computer Vision for Autonomous Systems**
	AI in E-Commerce, Marketing and Demand Forecast**	AI and its Application in Demand Forecast and Procurement**
	Industrial AI**	Medical NLP and Medical Robotics**
	Natural Language Processing and Voice Assistants**	AI for Analytics, Personalization and Recommender Systems**

i

* Electives: Choose two modules, every elective module can only be chosen once.
**This new module is expected to be selectable as of 01.08.2023
You can choose your combination of Elective A and Elective B freely or you can follow one of our majors, e.g. Artificial Intelligence in FinTech by choosing Artificial Intelligence in FinTech in Elective A and Robo Advisory and AI in FinTech in Elective B.

You can find more information about your degree program in the module handbook on our website.