

CURRICULUM M.SC. DATA SCIENCE

DISTANCE LEARNING, 120 ECTS

Semester			Module	Course Code	Course	ECTS	Type of Exam	
FT	PT I	PT II						
1. Semester	1. Semester	1. Semester	Data Science	DLMBDSA01	Data Science	5	Exam	
			Advanced Mathematics	DLMDSAM01	Advanced Mathematics	5	Exam	
			Seminar: Data Science and Society	DLMDSSDSS01	Seminar: Data Science and Society	5	Research Essay	
	2. Semester	2. Semester	Advanced Statistics	DLMDSAS01	Advanced Statistics	5	Workbook	
			Use Case and Evaluation	DLMDSUCE01	Use Case and Evaluation	5	Oral Assignment	
			Project: Data Science Use Case	DLMDSPDSUC01	Project: Data Science 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	
	4. Semester	4. Semester	Deep Learning	DLMDSDL01	Deep Learning	5	Oral Assignment	
			Big Data Technologies	DLMDSBDT01	Big Data Technologies	5	Oral Assignment	
3. Semester	4. Semester	5. Semester	ELECTIVE MODULE A **		e.g. Data Science Specialist	10		
			Cyber Security and Data Protection	DLMCSITSDP01	Cyber Security and Data Protection	5	Oral Assignment	
	5. Semester	6. Semester	Case Study: Model Engineering	DLMDSME01	Case Study: Model Engineering	5	Case Study	
			Software Engineering for Data Intensive Sciences	DLMDSSDIS01	Software Engineering for Data Intensive Sciences	5	Oral Assignment	
			ELECTIVE MODULE B **		e.g. Industrial Automation and Internet of Things	10		
	6. Semester	7. Semester	7. Semester	Seminar: Current Topics in Data Science	DLMDSSCTDS01	Seminar: Current Topics in Data Science	5	Research Essay
				Master Thesis	MMTHE01 MMTHE02	Master Thesis Colloquium	27 3	Master Thesis
Total			120 ECTS					



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You've already planned out exactly how your course schedule should look? Wonderful! The IU 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.



* Electives: Choose two modules, every 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

Elective A

Data Science Specialist
Technical Project Lead
Data Engineer
Business Analyst

Elective B

Management
Sales, Pricing and Brand Management
Consumer Behaviour and Research
Corporate Finance
Innovative and Change
Cognitive Computing
Applied Autonomous Driving
Self Learning Systems
Industrial Automation and Internet of Things



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