

**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	DLMSSDSS01	Seminar: Data Science and Society	5	Research Essay
	2. Semester	2. Semester	Advanced Statistics	DLMDSAS01	Advanced Statistics	5	Advanced 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	DLMDSL01	Deep Learning	5	Oral Assignment
			Big Data Technologies	DLMDSBDT01	Big Data Technologies	5	Oral Assignment
	5. 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
3. Semester	4. Semester	4. Semester	Case Study: Model Engineering	DLMDSME01	Case Study: Model Engineering	5	Case Study
			Software Engineering for Data Intensive Sciences	DLMDSSEDIS01	Software Engineering for Data Intensive Sciences	5	Oral Assignment
	5. Semester	5. Semester	ELECTIVE MODULE B **		e.g. Industrial Automation and Internet of Things	10	
			Seminar: Current Topics in Data Science	DLMSSCTDS01	Seminar: Current Topics in Data Science	5	Research Essay
4.	6.	8.	Master Thesis	MMTHE01 MMTHE02	Master Thesis Colloquium	27 3	Master Thesis
Total			120 ECTS				



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	Elective B
Data Science Specialist Technical Project Lead Data Engineer Business Analyst	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

**i**

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