

Distance Learning

Semester			Module	Module Code	Credit Points	Type of Assessment
FT	PT I	PT II				
1. Semester (Level 4)	1. Semester	1. Semester	Introduction to Data Science	LIBFEXDLBCSICS	15	Oral Assignment + Reflection Paper
			Introduction to Programming with Python	LIBFEXDLBDSIPWP	15	Exam
	2. Semester	2. Semester	Mathematics: Analysis	LIBFEXDLBDSMFC	15	Exam
			Statistics - Probability and Descriptive Statistics	LIBFEXDLBDSSPDS-01	15	Exam
2. Semester (Level 4)	3. Semester	3. Semester	Object Oriented and Functional Programming with Python	LIBFPDLBDSOOFPP	15	Portfolio
			Data Quality and Data Wrangling	LIBFOARPDLBDSQDQDW	15	Oral Assignment + Reflection Paper
3. Semester (Level 5)	4. Semester	4. Semester	Mathematics: Linear Algebra	LIBFEXDLBDSMFLA	15	Exam
			Statistics - Inferential Statistics	LIBFEXDLBDSSIS	15	Exam
	5. Semester	5. Semester	Introduction to Academic Work	LIBFAWDLBCSIAW	15	Advanced Workbook
			Database Modeling and Database Systems	LIBFEXDLBCSDMDS	15	Exam
4. Semester (Level 5)	6. Semester	6. Semester	Explorative Data Analysis and Visualization	LIBFAWDLBDSEDAV	15	Advanced Workbook
			Data Science Software Engineering	LIBFAWDLBDSDSSE	15	Advanced Workbook
	7. Semester	7. Semester	Machine Learning - Supervised Learning	LIBFWACSDLBDSMLSL	15	Written Assessment: Case Study
			Machine Learning - Unsupervised Learning and Feature Engineering	LIBFWACSDLBDSMLUSL	15	Written Assessment: Case Study
5. Semester (Level 6)	8. Semester	8. Semester	Elective A1		15	
			Elective A2		15	
	9. Semester	9. Semester	Neural Nets and Deep Learning	LIBFWAWDLBDSNNDL	15	Written Assessment: Written Assignment
			Seminar: Ethical Considerations in Data Science	LIBFWAREDLBDSSECDs	15	Written Assessment: Research Essay
6. Semester (Level 6)	10. Semester	10. Semester	Elective B1		15	
			Elective B2		15	
	11. Semester	11. Semester	Elective C1		15	
			Elective C2		15	
12. Semester	12. Semester	Bachelor Thesis	LIBFBTDLBBT	30	Bachelor Thesis	
Total			360			



FT: Full-Time, 36 months
PT I: Part-Time I, 48 months
PT II: Part-Time II, 72 months



The sequence of the modules is to be strictly followed



~ Electives: You can choose two elective modules from each elective area. You can freely choose these modules or follow our suggested combinations to stay in a specific subject area (only relevant for elective areas B and C). In total, a subject area consists of four elective modules (the exception being: Banking and Finance).

Electives

Elective A

Project: From Model to Production

Business Intelligence & Data Analytics

Project: Build a Data Mart in SQL

Agile Project Management

Neural Nets and Deep Learning

Seminar: Ethical Considerations in Data Science

Internship I

Internship II

Elective B

Business Intelligence

Project: Business Intelligence

Applied Sales I

Applied Sales II

Supply Chain Management I

Supply Chain Management II

Big Data Technologies

Cloud Computing

Artificial Intelligence

Project: Artificial Intelligence

Crypto and Blockchain

FinTech

Elective C

Advanced Data Analysis

Project: Data Analysis

Online Marketing

Social Media Marketing

Product Development in Industry 4.0

Project: Smart Product Solutions

Data Engineering

Project: Data Engineering

Self-Driving Vehicles

Seminar: Current Topics and Trends in Self-Driving Technology