

## 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 Computer Science	LIBFEXDLBCSICS	15	Exam
			Mathematics I	LIBFEXDLBCSM1	15	Exam
	2. Semester	2. Semester	Collaborative Work	LIBFOARPDLCSCW	15	Oral Assignment + Reflection Paper
			Computer Architecture and Operating Systems	LIBFEXDLBCSCAOS	15	Exam
2. Semester (Level 4)	3. Semester	3. Semester	Database Modeling and Database Systems	LIBFEXDLBCSDMDS	15	Exam
			Requirements Engineering	LIBFEXDLBCSRE	15	Exam
	4. Semester	4. Semester	Computer Networks and Distributed Systems	LIBFEXDLBCSNDSDS	15	Exam
			Introduction to Programming with Python	LIBFEXDLBDSIPWP	15	Exam
3. Semester (Level 5)	4. Semester	5. Semester	Introduction to Academic Work	LIBFAWDLBCSIAW	15	Advanced Workbook
			Algorithms, Data Structures, and Programming Languages	LIBFAWDLBCSL	15	Advanced Workbook
	6. Semester	6. Semester	Theoretical Computer Science and Mathematical Logic	LIBFAWDLBCSTCSML	15	Advanced Workbook
			Web Application Development	LIBFAWDLBCSWAD	15	Advanced Workbook
4. Semester (Level 5)	5. Semester	7. Semester	Project: Build a Data Mart in SQL	LIBFOPRRPDLBDSPBDM	15	Oral Project Report + Reflection Paper
			Project: Software Engineering	LIBFOPRRPDLBCSPSE	15	Oral Project Report + Reflection Paper
	8. Semester	8. Semester	Elective A1		15	
			Elective A2		15	
5. Semester (Level 6)	9. Semester	9. Semester	Computer Science and Society	LIBFWAWDLBCSCSAS	15	Written Assessment: Written Assignment
			Seminar: Current Topics in Computer Science	LIBFWAREDLBCSCTCS	15	Written Assessment: Research Essay
	10. Semester	10. Semester	Elective B1		15	
			Elective B2		15	
6. Semester (Level 6)	11. Semester	11. Semester	Elective C1		15	
			Elective C2		15	
	12. Semester	12. Semester	Bachelor Thesis	LIBFBTDLBBT	30	Bachelor Thesis
			<b>Total</b>		<b>360</b>	



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

## Elective A

Change Management

Agile Project Management

Introduction to Process Management

Object oriented and functional programming with Python

Data Science Software Engineering

Internship I

Internship II

## Software Engineering

## IT Operations and PM

## Cyber Security

## Big Data &amp; Business Intelligence

## Artificial Intelligence

## Elective B

Techniques and methods for agile software development

Project: Agile Software Engineering

IT Service Management

Project: IT Service Management

Introduction to Data Protection and Cyber Security

Cryptography

Big Data Technologies

Cloud Computing

Artificial Intelligence

Project: Artificial Intelligence

## Elective C

Seminar: Software Engineering

Project: Software Development

IT Project Management

IT Architecture Management

Technical and Operational IT Security Concepts

Project: Configuration and Application of SIEM Systems

Business Intelligence

Project: Business Intelligence

Self-Driving Vehicles

Seminar: Current Topics and Trends in Self-Driving Technology

~ 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.