

Semester												Total					
1		Calculus I		Programming 1		Technical Foundation of CS		Physics		German 1		English 1					
SWH	ECTS	8	8	6	6	4	5	5	6	4	2	4	3	31	30		
2		Linear Algebra		Programming 2		Computer Networks		Microcomputer Technology		Theoretical CS		German 2		English 2			
SWH	ECTS	4	5	4	5	4	5	4	5	4	5	4	3	2	2	25	30
3		Calculus II		Programming 3		Operating Systems		Databases		Data Structures and Algorithms		German 3		Comm. & Moderation			
SWH	ECTS	4	5	4	5	4	5	4	5	4	5	4	3	2	2	25	30
4		Stochastics		Software Engineering		Distributed and Web-based Systems		Information Security		Introduction to Data Science		Introduction to Media Informatics					
SWH	ECTS	4	5	4	5	4	5	4	5	4	5	4		5		24	30
5		Elective 1		Software Project		Module Subject 1		Module Subject 2		Module Subject 3		German 4		Research Paper Writing			
SWH	ECTS	4	5	4	5	4	5	4	5	4	5	4	3	2	2	25	30
6		Elective 2		Seminar		Module Subject 4		Module Subject 5		Module Subject 6		Elective 3					
SWH	ECTS	4	5	4	5	4	5	4	5	4	5	4		5		24	30
7		Project Management				Teamoriented Project								4+8	15		
8		Internship and Report											30				
		Bachelor Thesis and Seminar											15				
Total													240				

Basic Sciences	Computer Science	Major	University Requirements	Students Choice
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Data Science					
Database Programming		Data Engineering & Visualisation		Machine Learning	
4	5	4	5	4	5
Big Data & NoSQL		Deep Learning		Optimisation Methods	
4	5	4	5	4	5

It-Security					
Security & Risk Management		Application and Mobile Devices Security		Digital Forensics	
4	5	4	5	4	5
Cryptography		Pentesting		Business Continuity Management	
4	5	4	5	4	5

Software Engineering					
Requirements Engineering		Software Design & Architecture		Software Construction & Testing	
4	5	4	5	4	5
SW Maintenance and Evolution		SW Project Management		Software Engineering Design Project	
4	5	4	5	4	5

Media Informatics					
Basics of Web-Programming		Usability		Computer Graphics	
4	5	4	5	4	5
Web Application Development		Media Informatics Project		3D-Design	
4	5	4	5	4	5