CURRICULUM M.Sc. COMPUTER SCIENCE

myStudies, 120 ECTS

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	Model 1: Programme Start October				Model 2: Programme Start April				
Month	Courses				Courses				
Oct		Algorithmics		Cyber Security and Data Protection					
Nov	Advanced Mathematics								
Dec									
Jan	Carrier of Community of Calculus and	Artificial Intelligence		Advanced Statistics					
Feb	Seminar: Computer Science and Society								
Mar	·								
Apr	Data Science	Big Data Technologies		Programming with Python	Data Science	Big Data Technologies		Programming with Python	
May	Dig Data 10		1 rogramming with r ython		Dig Butta 1		Trogramming with rython		
Jun	Semester Break								
Jul	Software Engineering: Software Project: Softw		Networks and Distributed		Software Engineering: Software	Project: Software Engineering		Networks and Distributed	
Aug	Processes			Systems Processes				Systems	
Sep	Semester Break								
Oct	Seminar: Current Topics in Computer Science		Project: Computer Science Project		Advanced Mathematics	Algorithmics		Cyber Security and Data	
Nov								Protection	
Dec									
Jan	Elective A Course a		Elective A Course b		Seminar: Computer Science and Society	Artificial Intelligence		Advanced Statistics	
Feb									
Mar									
Apr	Elective B Course c		Elective B Course d		Seminar: Current Topics in Cor	mputer Science Project: (Computer Science Project	
May					<u> </u>		.,		
Jun	Semester Break								
Jul	Master Thesis				Elective A		Elective A		
Aug					Course a		Course b		
Sep	Semester Break								
Oct					Elective B		Elective B		
Nov				Course c		Course d			
Dec									
Jan									
Feb			Master Thesis						
Mar									





Here you see the order in which you can study your courses in presence depending on your personal study start in October or April. IU International University of Applied Sciences offers you the flexibility to switch

Sciences offers you the flexibility to switch from campus to online studies or the other way around. You decide which semester you want to spend on campus or online.

The above is only valid for DACH students. For INT Students: attending the courses on Campus in presence is mandatory and will be verified due to VISA regulations.



Each semester consists of two blocks that conclude with a two-week exam preparation phase. You can also defer those exams to a later date that you do not want to take during this period. This way, your exam phases are always spread evenly over the year.

In each block, you attend classes on campus for usually three courses to deepen the content in direct exchange with your fellow students and lecturers. You have semester breaks in June and September.

Elective A* Elective B* Business Analyst Advanced Cyber Security and Cryptology a) Seminar: Advanced Cyber Security c) Business Intelligence I b) Cryptology d) Project: Business Intelligence Blockchain and Quantum Computing Data Engineer c) Data Engineering a) Blockchain b) Quantum Computing d) Project: Data Engineering Machine Learning and Deep Learning *IT Governance and Service Management* a) IT Service Management c) Machine Learning b) IT Governance and Compliance d) Deep Learning UI/UX Expert Technical Project Lead a) User Interface and Experience c) IT Project Management b) Project: Human Computer Interaction d) Project: Technical Project Planning Use Case Identification and Evaluation for Analytical Applications c) Use Case and Evaluation d) Project: Data Science Use Case Internship**

* Electives: Choose one module from the Elective A and one module from the Elective B.

Note: Those elective modules where the minimum number of participants is not reached will only be offered online (distance learning). However, IU ensures that there are always electives on campus.

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** The elective "Internship" is offered for the first time in October 2022. Please note: By choosing the elective "Internship" you cannot qualify for the dual degree with LSBU.



Attention: Attendance times may vary slightly depending on public holidays and the federal state holidays the campus is located in.

Course Information Course Code ECTS Type of Exam Module Course DLMDSAM01 **Advanced Mathematics** Exam **Advanced Mathematics** DLMCSA01 Algorithmics Algorithmics Exam DLMCSITSDP01 Cyber Security and Data Protection Cyber Security and Data Protection Oral Assignment DLMCSSCSAS01 Seminar: Computer Science and Society Seminar: Computer Science and Society Research Essay DLMAIAI01 Artificial Intelligence Artificial Intelligence Exam DLMDSAS01 **Advanced Statistics Advanced Statistics** Advanced Workbook DLMBDSA01 Data Science Data Science Exam DLMDSBDT01 Big Data Technologies Big Data Technologies Oral Assignment DLMDSPWP01 Programming with Python Programming with Python Written Assignment DLMCSSESP01 Software Engineering: Software Processes Software Engineering: Software Processes Oral Assignment DLMCSPSE01 Project: Software Engineering Project: Software Engineering Portfolio DLMCSNDS01 Networks and Distributed Systems Networks and Distributed Systems Exam DLMCSSCTCS01 Seminar: Current Topics in Computer Science Seminar: Current Topics in Computer Science Research Essay DLMCSPCSP01 Project: Computer Science Project Project: Computer Science Project Portfolio 10 **ELECTIVE A*** e.g. Advanced Cyber Security and Cryptrology **ELECTIVE B*** e.g. Data Engineer 10 Master Thesis Master Thesis 27 **Master Thesis** Thesis Defense Presentation: Colloquium