CURRICULUM B.Sc. COMPUTER SCIENCE
Campus Studies, 180 ECTS Credits

Month	Model 1: Programme Start October — Courses					Model 2: Programme Start April — Courses				
Oct / Nov / Dec	Introduction to Computer Science	Object-oriented Programming with Java	Intercultural and Ethical Decision Making							
Jan / Feb / Mar	Mathematics I	Statistics: Probability and Descriptive Statistics	Collaborative Work							
Apr / May	Data Structures and Java Class Library	Mathematics II	Web Application Development			Introduction to Computer Science	Object-oriented Programming with Java	Intercultural and Ethical Decision Making		
Jun	Lecture-Free Period									
Jul / Aug	Project: Java and Web Development*	Computer Architecture and Operating Systems*	Introduction to Academic Work			Mathematics I	Statistics: Probability and Descriptive Statistics	Collaborative Work		
Sep	Lecture-Free Period									
Oct / Nov / Dec	Database Modeling and Database Systems	Project: Build a Data Mart in SQL	Requirements Engineering			Data Structures and Java Class Library	Mathematics II	Web Application Development		
Jan / Feb / Mar	Algorithms, Data Structures and Programming Languages	Operating Systems, Computer Networks, and Distributed Systems	Introduction to Programming with Python			Project: Java and Web Development*	Computer Architecture and Operating Systems*	Introduction to Academic Work		
Apr / May	IT Service Management	Project: IT Service Management	Theoretical Computer Science and Mathematical Logic			IT Service Management	Project: IT Service Management	Theoretical Computer Science and Mathematical Logic		
Jun	Lecture-Free Period									
Jul / Aug	Software Quality Assurance	Introduction to Data Protection and Cyber Security	Cryptography			Software Quality Assurance	Introduction to Data Protection and Cyber Security	Cryptography		
Sep	Lecture-Free Period									
Oct / Nov / Dec	Specification	Project: Agile Project Management	Elective A Course a	Elective A Course b		Database Modeling and Database Systems	Project: Build a Data Mart in SQL	Requirements Engineering		
Jan / Feb / Mar	IT Law	Project Software Engineering	Elective B Course c	Elective B Course d		Algorithms, Data Structures and Programming Languages	Operating Systems, Computer Networks, and Distributed Systems	Introduction to Programming with Python		
Apr / May	Computer Science and Society	Seminar: Current Topics in Computer Science				Computer Science and Society	Seminar: Current Topics in Computer Science			
Jun	Lecture-Free Period									
Jul / Aug	Bachelor Thesis					Bachelor Thesis				
Sep	Lecture-Free Period									
Oct / Nov / Dec						Specification	Project: Agile Project Management	Elective A Course a	Elective A Course b	
Jan / Feb / Mar						IT Law	Project Software Engineering	Elective B Course c	Elective B Course d	

☑

Here you see the order in which you study your courses in presence depending on your personal study start in October or April. Each semester consists of two blocks. 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 lecture-free periods in both June and September, which you can spend reviewing and preparing for exams. Attending the courses on campus is mandatory and will be verified due to Visa regulations (not valid for DACH students).

Each block concludes with a two-week exam preparation phase. You can 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. Exceptions to this are courses that count as admission requirements for other courses.

☑

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

☑

If you are studying Model 2 you will have to start your Bachelor Thesis before completing your final courses.

Note: You can already start with your thesis earlier than the designated block, once you have met the minumum amount of credit points required to enter.

Elective A~

Big Data and Cloud Technologies
   a) Big Data Technologies*
   b) Cloud Computing
Business Intelligence
   a) Business Intelligence
   b) Project: Business Intelligence
IT Project and Architecture Management
   a) IT Project Management
   b) IT Architecture Management
Mobile Software Engineering
   a) Mobile Software Engineering
   b) Project: Mobile Software Engineering
Salesforce Platform Development
   a) Project: Salesforce Platform App Builder
   b) Project: Salesforce Platform Developer
Salesforce Platform Management
   a) Salesforce Fundamentals
   b) CRM with Salesforce Service Cloud
Software Engineering with Python
   a) Object oriented and functional programming in Python
   b) Data Science Software Engineering*
Internship

Elective B~

Big Data and Cloud Technologies
   c) Big Data Technologies*
   d) Cloud Computing
Business Intelligence
   c) Business Intelligence
   d) Project: Business Intelligence
IT Project and Architecture Management
   c) IT Project Management
   d) IT Architecture Management
Mobile Software Engineering
   c) Mobile Software Engineering
   d) Project: Mobile Software Engineering
Salesforce Platform Development
   c) Project: Salesforce Platform App Builder
   d) Project: Salesforce Platform Developer
Salesforce Platform Management
   c) Salesforce Fundamentals
   d) CRM with Salesforce Service Cloud
Software Engineering with Python
   c) Object oriented and functional programming in Python
   d) Data Science Software Engineering*
Mastering Prompts
   c) Artificial Intelligence
   d) Project: AI Excellence with Creative Prompting Techniques
Career Development
   c) Personal Career Plan
   d) Personal Elevator Pitch
AWS Cloud Specialization
   c) Project: AWS - Cloud Essentials
   d) Project: AWS - Cloud Advanced
Studium Generale I and II
Internship

☑

~ Electives: Choose one module with two courses from the Elective A and one module from the Elective B. Every elective module can only be chosen once.

* This course comes with admissions requirements. Please consult the module handbook for more information.

IU
INTERNATIONAL UNIVERSITY OF APPLIED SCIENCES