CURRICULUM B.Sc. COMPUTER SCIENCE

myStudies, 180 ECTS Credits

Month	Model 1: Programme Start October				Model 2: Programme Start April			
	Courses				Courses			
Oct	Introduction to Computer Science	Object-oriented Programming with Java	Intercultural and Ethical Decision Making					
Nov								
Dec								
Jan	Mathematics I	Statistics: Probability and Descriptive Statistics	Collaborative Work					
Feb								
Mar								
Apr	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	
May								
Jun	Lecture-Free Period							
Jul	Project: Java and Web Development*	Computer Architecture and Operating Systems*	Introduction to Academic Work		Mathematics I	Statistics: Probability and Descriptive Statistics	Collaborative Work	
Aug								
Sep	Lecture-Free Period							
Oct	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	
Nov								
Dec								
Jan	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	
Feb								
Mar								
Apr	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	
May								
Jun	Lecture-Free Period							
Jul	Software Quality Assurance	Introduction to Data Protection and Cyber Security	Cryptography		Software Quality Assurance	Introduction to Data Protection and Cyber Security	Cryptography	
Aug								
Sep	Lecture-Free Period							
Oct	Specification	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	
Nov								
Dec								
Jan	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	
Feb								
Mar								
Apr	Computer Science and Society		Seminar: Current Topics in Computer Science		Computer Science and Society		Seminar: Current Topics in Computer Science	
May								
Jun	Lecture-Free Period							
Jul	Bachelor Thesis				Bachelor Thesis			
Aug								
Sep	Lecture-Free Period							
Oct					Specification	Agile Project Management	Elective A Course a	Elective A Course b
Nov								
Dec								
Jan					IT Law	Project Software Engineering	Elective B Course c	Elective B Course d
Feb								
Mar								

INTERNATIONAL UNIVERSITY OF APPLIED SCIENCES

☑

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 I
- b) Mobile Software Engineering II

Salesforce Platform Development
- a) Salesforce Platform App Builder
- b) 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 I
- d) Mobile Software Engineering II

Salesforce Platform Development
- c) Salesforce Platform App Builder
- d) 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

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.

Note: 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.

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

Course Information

Module	Course Code	Course	ECTS Credits	Type of Exam
Introduction to Computer Science	DLBCSICS01	Introduction to Computer Science	5	Exam
Object-oriented Programming with Java	DLBCSOOPJ01	Object-oriented Programming with Java	5	Exam
Intercultural and Ethical Decision Making	DLBCSIDM01	Intercultural and Ethical Decision Making	5	Written Assessment: Case Study
Mathematics I	DLBCSM101	Mathematics I	5	Exam
Statistics - Probability and Descriptive Statistics	DLBDSSPDS01-01	Statistics - Probability and Descriptive Statistics	5	Exam
Collaborative Work	DLBCSCW01	Collaborative Work	5	Oral Assignment
Data Structures and Java Class Library	DLBCSDSJCL01	Data Structures and Java Class Library	5	Exam
Mathematics II	DLBCSM201	Mathematics II	5	Exam
Web Application Development	DLBCSWAD01	Web Application Development	5	Advanced Workbook
Project: Java and Web Development*	DLBCSPJWD01	Project: Java and Web Development*	5	Portfolio
Computer Architecture and Operating Systems*	DLBCSCAOS01	Computer Architecture and Operating Systems*	5	Exam
Introduction to Academic Work	DLBCSIAW01	Introduction to Academic Work	5	Basic Workbook
Database Modeling and Database Systems	DLBCSDMDS01	Database Modeling and Database Systems	5	Exam
Project: Build a Data Mart in SQL	DLBDSPBDM01	Project: Build a Data Mart in SQL	5	Portfolio
Requirements Engineering	DLBCSRE01	Requirements Engineering	5	Exam
Algorithms, Data Structures and Programming Languages	DLBCSL01-01	Algorithms, Data Structures and Programming Languages	5	Exam/Advanced Workbook
IT Service Management	DLBCSITSM01-02	IT Service Management	5	Exam
Project: IT Service Management	DLBCSPITSM01	Project: IT Service Management	5	Written Assessment: Project Report
Operating Systems, Computer Networks, and Distributed Systems	DLBIBRVS01_E	Operating Systems, Computer Networks, and Distributed Systems	5	Exam
Theoretical Computer Science and Mathematical Logic	DLBCSTCSML01	Theoretical Computer Science and Mathematical Logic	5	Exam
Introduction to Programming with Python	DLBDSIPWP01	Introduction to Programming with Python	5	Exam
Software Quality Assurance	DLBCSSQA01	Software Quality Assurance	5	Exam
Specification	DLBCSS01	Specification	5	Exam
Computer Science and Society	DLBCSCSAS01	Computer Science and Society	5	Written Assessment: Written Assignment
Cryptography	DLBCSCT01-01	Cryptography	5	Written Assessment: Case Study
Introduction to Data Protection and Cyber Security	DLBCSIDPITS01	Introduction to Data Protection and Cyber Security	5	Exam
Agile Project Management	DLBCSAPM01	Agile Project Management	5	Written Assessment: Project Report
Seminar: Current Topics in Computer Science	DLBCSSCTCS01	Seminar: Current Topics in Computer Science	5	Written Assessment: Research Essay
IT Law	DLBCSITL01	IT Law	5	Written Assessment: Case Study
Project Software Engineering	DLBCSPSE01	Project Software Engineering	5	Written Assessment: Project Report
ELECTIVE A~		e.g. Big Data and Cloud Technologies	10	
ELECTIVE B~		e.g. Business Intelligence	10	
Bachelor Thesis		Bachelor Thesis	9	Bachelor Thesis
		Thesis Defense	1	Presentation: Colloquium