CURRICULUM B.SC. CLOUD COMPUTING

DISTANCE LEARNING

Semester FT	Semester PT I	Semester PT	Module	Course Code	Course	ECTS	Type of Exam
1. Semester	1. Semester	1. Semester	Introduction to Computer Science	DLBCSICS01	Introduction to Computer Science	5	Exam
			Cloud Computing	DLBDSCC01	Cloud Computing	5	Exam
			Introduction to Academic Work	DLBCSIAW01	Introduction to Academic Work	5	Basic Workbook
		2. Semester	Techniques and methods for agile software development	IWNF01_E	Techniques and methods for agile software development	5	Exam
			Project: Agile Software Engineering	IWNF02_E	Project: Agile Software Engineering	5	Written Assessment: Project Report
	2. Semester		Internship: Bachelor Cloud Computing[1]	DLBCCOEIBCC01	Internship: Bachelor Cloud Computing[1]	5	Reflection of Practical Experiences
2. Semester		3. Semester	Mathematics I	DLBCSM101	Mathematics I	5	Exam
			Database Modeling and Database Systems	DLBCSDMDS01	Database Modeling and Database Systems	5	Exam
			Big Data Technologies	DLBDSBDT01	Big Data Technologies	5	Exam
	3. Semester	4. Semester	Introduction to the Internet of Things	DLBINGEIT01_E	Introduction to the Internet of Things	5	Exam
			Project: Build a Data Mart in SQL	DLBDSPBDM01	Project: Build a Data Mart in SQL	5	Portfolio
			Internship: Bachelor Cloud Computing[1]	DLBCCOEIBCC01	Internship: Bachelor Cloud Computing[1]	5	Reflection of Practical Experiences
3. Semester		5. Semester	Operating Systems, Computer Networks, and Distributed Systems	DLBIBRVS01_E	Operating Systems, Computer Networks, and Distributed Systems	5	Exam
			IT Infrastructure	DLBSEPITI01_E	IT Infrastructure	5	Exam
	4. Semester		Introduction to Low-Code Development	DLBDBEILCD01	Introduction to Low-Code Development	5	Written Assessment: Case Study
		6. Semester	Computer Science and Society	DLBCSCSAS01	Computer Science and Society	5	Written Assessment: Written Assignment
			Project: Low-Code Development	DLBDBEPLCD01	Project: Low-Code Developmen	5	Oral Project Report
			Internship: Bachelor Cloud Computing[1]	DLBCCOEIBCC01	Internship: Bachelor Cloud Computing[1]	5	Reflection of Practical Experiences
4. Semester	5. Semester	7. Semester	Introduction to Data Protection and Cyber Security	DLBCSIDPITS01	Introduction to Data Protection and Cyber Security	5	Exam
			Technical and Operational IT Security Concepts	DLBCSEEISC01_E	Technical and Operational IT Security Concepts	5	Exam
			Security Controls in the Cloud	DLBCSEECS01_E	Security Controls in the Cloud	5	Exam
		8. Semester	Seminar: Current Topics in Cloud Computing	DLBCCOSCTICC01	Seminar: Current Topics in Cloud Computing	5	Written Assessment: Research Essay
			Project: Security by Design in the Cloud	DLBCSEECS02_E	Project: Security by Design in the Cloud	5	Written Assessment: Project Report
	6. Semester		Internship: Bachelor Cloud Computing[1]	DLBCCOEIBCC01	Internship: Bachelor Cloud Computing[1]	5	Reflection of Practical Experiences
5. Semester		9. Semester	Project: Agile DevSecOps Software Engineering	DLBCSEEDSO01_E	Project: Agile DevSecOps Software Engineering	5	Written Assessment: Project Report
			Internship: Bachelor Cloud Computing[1]	DLBCCOEIBCC01	Internship: Bachelor Cloud Computing[1]	5	Reflection of Practical Experiences
		10.	ELECTIVE A*		e.g.	10	
	7. Semester		ELECTIVE B*		e.g.	10	
		11.	Cloud Programming	DLBSEPCP01_E	Cloud Programming	5	Portfolio
			Internship: Bachelor Cloud Computing[1]	DLBCCOEIBCC01	Internship: Bachelor Cloud Computing[1]	5	Reflection of Practical Experiences
	8.	12.	ELECTIVE C*		e.g.	10	
			Bachelor Thesis		Bachelor Thesis Thesis Defense	9 1	Bachelor Thesis Presentation: Colloquium
Total 180 ECTS							

Majors	Elective A:	Elective B:	Elective C:
Strategy	IT Architecture Management	Managerial Economics	Project: IT Service Management
	IT Service Management	Corporate Governance and Strategy	IT Law
Data	Introduction Programming with Python	Explorative Data Analysis and Visualization	Data Analytics and Big Data
	Object Oriented and Functional Programming in Python	Data Engineering	Advanced Data Analysis
Smart	Smart Devices I	Smart Services I	Smart Factory I
	Smart Devices II	Smart Services II	Smart Factory II
Security	Theoretical Computer Science and Mathematical Logic	Threat Modeling	Cryptography
	Requirements Engineering	Information Security Standards	Attack Models and Threat Feeds
Machine Learning	Mathematics: Analysis	Statistics: Probability and Descriptive Statistics	Machine Learning - Supervised Learning
	Mathematics: Linear Algebra	Statistics - Inferential Statistics	Machine Learning - Unsupervised Learning and Feature Engineering

Additional modules			
	Mathematics II		Mathematics II

Elective D

Internship: Bachelor Cloud Computing[1]
Personal Career Plan
Intercultural and Ethical Decision-Making
Conflict Management and Mediation

INTERNATIONAL UNIVERSITY OF APPLIED SCIENCES

☑

You've already planned out exactly how your course schedule should look? Wonderful!
The IU International University of Applied Sciences offers you the flexibility to choose any available module you like from any semester. You can work on a number of modules at the same time or one by one.

☑

At the beginning, choose modules that particularly interest you or that you can use directly in your job. This motivates you and gives you success right from the start.

☑

A module with two courses consists of an introduction and a consolidation. In order to successfully complete a module, you must successfully pass both the introduction and the consolidation of the module within the framework of a module examination.

☑

ⓘ

You can find more information about your degree program in the module handbook on our website.

[1]**Internship:**
Decide at the beginning between an internship at a company or modules from compulsory elective D. You complete the internship with a practical reflection. If you decide on the modules from compulsory elective D, all modules from this area must be completed. Mixed forms of internship and compulsory elective D are not possible.