CURRICULUM B.SC. SOFTWARE DEVELOPMENT

DISTANCE LEARNING

Semester FT	Semester PT I	Semester PT II	Module	Course Code	Course	ECTS	Type of Exam
1. Semester	1. Semester	1. Semester	Software Engineering Principles	IGIS01_E	Software Engineering Principles	5	Exam
			Introduction to Academic Work	DLBCSIAW01	Introduction to Academic Work	5	Workbook
			Requirements Engineering	DLBCSRE01	Requirements Engineering	5	Exam
		2. Semester	Specification	DLBCSS01	Specification	5	Exam
			Object-oriented Programming with Java	DLBCSOOPJ01	Object-oriented Programming with Java	5	Exam
	2. Semester		Database Modeling and Database Systems	DLBCSDMDS01	Database Modeling and Database Systems	5	Exam
2. Semester		3. Semester	Data structures and Java class library	DLBCSDSJCL01	Data structures and Java class library	5	Exam
			Collaborative Work	DLBCSCW01	Collaborative Work	5	Oral Assignment
			Web Application Development	DLBCSWAD01	Web Application Development	5	Exam
	3. Semester	4. Semester	Algorithms, Data Structures, and Programming Languages	DLBCSL01	Algorithms, Data Structures, and Programming Languages	5	Exam
			Software Quality Assurance	DLBCSSQA01	Software Quality Assurance	5	Exam
			IT Architecture Management	DLBCSEITPAM02	IT Architecture Management	5	Exam
3. Semester		5. Semester	Programming Information Systems with Java EE	IPWA02_E	Programming Information Systems with Java EE	5	Exam
			Ethics and Sustainability in IT	DLBSEPENIT01_E	Ethics and Sustainability in IT	5	Case Study
	4. Semester		IT Project Management	DLBCSEITPAM01	IT Project Management	5	Exam
		6. Semester	Techniques and methods for agile software development	IWNF01_E	Techniques and methods for agile software development	5	Exam
			Mobile Software Engineering	IWMB01_E	Mobile Software Engineering	5	Exam
			Seminar: Software Engineering	ISSE01_E	Seminar: Software Engineering	5	Research Essay
4. Semester	5. Semester	7. Semester	Project: Agile Software Engineering	IWNF02_E	Project: Agile Software Engineering	5	Project Report
			IT Infrastructure	DLBSEPITI01_E	IT Infrastructure	5	Exam
			IT-Service Management	DLBCSITSM01	IT-Service Management	5	Exam
		8. Semester	Project: Mobile Software Engineering	IWMB02-01_E	Project: Mobile Software Engineering	5	Portfolio
			Cloud Programming	DLBSEPCP01_E	Cloud Programming	5	Portfolio
	6. Semester		Introduction to Data Protection and IT Security	DLBCSIDPITS01	Introduction to Data Protection and IT Security	5	Exam
5. Semester		9. Semester	DevOps and Continuous Delivery	DLBSEPDOCD01_E	DevOps and Continuous Delivery	5	Case Study
			User Interface Design and Ergonomics	DLBMIUID01_E	User Interface Design and Ergonomics	5	Exam
			Introduction to Programming with Python	DLBDSIPWP01	Introduction to Programming with Python	5	Exam
	7. Semester		Project: Software Development	DLBSEPPSD01_E	Project: Software Development	5	Oral Project Report
		10.	ELECTIVE A*		e.g. Data Science and object oriented programming with Python	10	
6. Semester			ELECTIVE B*		e.g. Internet of Things and Embedded Systems	10	
	8.	11.	ELECTIVE C*		e.g. Augmented, Mixed and Virtual Reality	10	
		12.	Bachelor Thesis		Bachelor Thesis Thesis Defense	9 1	Bachelor Thesis Presentation: Colloquium
Total 180 ECTS							

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

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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.

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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.

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* Electives: Choose three modules, every elective module can only be chosen once.

FT: Full-Time, 36 months
PT I: Part-Time I, 48 months
PT II: Part-Time II, 72 months

Elective A & B:

Mathematics Basics
Mathematics: Linear Algebra and Analysis
Statistics Basics
Data Science and object oriented programming with Python
Internet of Things and Embedded Systems
Robotics and Production Engineering
International Management and Leadership
International Marketing and Branding
Applied Sales
Supply Chain Management
Financial Services

Elective C:

Business Intelligence
Smart Devices
Smart Factory
Smart Mobility
Smart Services
IT Security Consulting
Business Consulting
Augmented, Mixed and Virtual Reality
Digital Business
Infrastructure and Operations
Data Engineer
User Experience
AI Specialist

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