

CURRICULUM B.ENG. ROBOTICS

DISTANCE LEARNING

Semester			Module	Course Code	Course	ECTS	Type of Exam	
FT	PT I	PT II						
1. Semester	1. Semester	1. Semester	Introduction to Robotics	DLBROI01_E	Introduction to Robotics	5	Exam or Written Assignment	
			Introduction to Academic Work	DLBCSIW01	Introduction to Academic Work	5	Workbook	
			Scientific and technical fundamentals	DLBINGAG01_E	Scientific and technical fundamentals	5	Exam	
	2. Semester	2. Semester	1. Semester	Technical Drawing	DLBROTD01_E	Technical Drawing	5	Exam
				Mathematics: Linear Algebra	DLBDSMFLA01	Mathematics: Linear Algebra	5	Exam
				Mathematics II	DLBDSM201	Mathematics II	5	Exam
2. Semester	2. Semester	3. Semester	Production Engineering	DLBDEAR01	Production Engineering	5	Exam	
			Introduction to Programming with Python	DLBDSIPWP01	Introduction to Programming with Python	5	Exam	
			Mathematics: Analysis	DLBDSMFC01	Mathematics: Analysis	5	Exam	
	3. Semester	4. Semester	4. Semester	Mechanics - Statics	DLBROMS01_E	Mechanics - Statics	5	Exam
				Electrical Engineering	DLBINGET01-01_E	Electrical Engineering	5	Exam
				Project: Design with CAD	DLBROPDCAD01_E	Project: Design with CAD	5	Oral Project Report
3. Semester	4. Semester	5. Semester	Sensor Technology	DLBROST01_E	Sensor Technology	5	Exam	
			Signals and Systems	DLBROSS01_E	Signals and Systems	5	Exam	
			Mechanics - Kinematics	DLBROMK01_E	Mechanics - Kinematics	5	Exam	
	4. Semester	6. Semester	6. Semester	Mechanics - Dynamics	DLBROMD01_E	Mechanics - Dynamics	5	Exam
				Collaborative Work	DLBCSCW01	Collaborative Work	5	Oral Assignment
				Programming with C/C++	DLBROEPRS01_E	Programming with C/C++	5	Portfolio
4. Semester	5. Semester	7. Semester	Mechatronic Systems	DLBROMSY01_E	Mechatronic Systems	5	Exam	
			Control Systems Engineering	DLBROCSE01_E	Control Systems Engineering	5	Exam	
			Project: Modeling and Simulation of Robots	DLBROPMSR01_E	Project: Modeling and Simulation of Robots	5	Project Report	
	5. Semester	8. Semester	8. Semester	Project: Introduction to Robot Control	DLBROPIRC01_E	Project: Introduction to Robot Control	5	Project Report
				Embedded Systems	DLBROES01_E	Embedded Systems	5	Exam
				Project: Robotics	DLBROPR01_E	Project: Robotics	5	Oral Project Report
5. Semester	9. Semester	9. Semester	Seminar: Human-Robot Interaction	DLBROSHRI01_E	Seminar: Human-Robot Interaction	5	Research Essay	
			Project: Applied Robotics with Robotic Platforms	DLBROPARRP01_E	Project: Applied Robotics with Robotic Platforms	5	Oral Project Report	
			Seminar: Robots and Society	DLBROSRS01_E	Seminar: Robots and Society	5	Research Essay	
6. Semester	10. Semester	10. Semester	Safety of Industrial Plants and Machines	DLBROSIPM01_E	Safety of Industrial Plants and Machines	5	Exam	
			ELECTIVE A*		e.g. Industrial Robotics and Automation	10		
			ELECTIVE B*		e.g. Service Robotics	10		
			ELECTIVE C*		e.g. Introduction to Cognitive Robotics	10		
6. Semester	11. Semester	11. Semester	Bachelor Thesis		Bachelor Thesis	9	Bachelor Thesis	
					Thesis Defense	1	Presentation: Colloquium	
Total			180 ECTS					



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 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.



* 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:	Elective B:	Elective C:
Introduction to Cognitive Robotics Industrial Robotics and Automation Service Robotics	Industrial Robotics and Automation Service Robotics Introduction to Cognitive Robotics AI Specialist Autonomous Driving Data Science and Deep Learning Python for Software Engineering IT Security Mobile Software Engineering Foreign Language Italian Foreign Language French German Language Foreign Language Spanish	Introduction to Cognitive Robotics Industrial Robotics and Automation Service Robotics Industrial Robotics and Automation Service Robotics Introduction to Cognitive Robotics AI Specialist Autonomous Driving Data Science and Deep Learning Python for Software Engineering IT Security Mobile Software Engineering Foreign Language Italian Foreign Language French German Language Foreign Language Spanish



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