CURRICULUM B.ENG. ROBOTICS
DISTANCE LEARNING

INTERNATIONAL UNIVERSITY OF APPLIED SCIENCES

Semester FT	PT I	PT II	Module	Course Code	Course	ECTS credits	Type of Exam
1. Semester	1. Semester	1. Semester	Introduction to Robotics	DLBROIR01_E	Introduction to Robotics	5	Exam or Written Assignment
			Introduction to Academic Work	DLBCSIAW01	Introduction to Academic Work	5	Basic Workbook
			Mathematics II	DLBCSM201	Mathematics II	5	Exam
		2. Semester	Fundamentals of Physics	DLBWINGP01_E	Fundamentals of Physics	5	Exam
			Mathematics: Linear Algebra	DLBDSMFLA01	Mathematics: Linear Algebra	5	Exam
			Technical Drawing	DLBROTD01_E	Technical Drawing	5	Exam
2. Semester	2. Semester	3. Semester	Production Engineering Industry 4.0	DLBDSEAR01	Production Engineering Industry 4.0	5	Exam
			Introduction to Programming with Python	DLBDSIPWP01	Introduction to Programming with Python	5	Exam
			Mathematics: Analysis	DLBDSMFC01	Mathematics: Analysis	5	Exam
		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	3. 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	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
		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	6. 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
			Safety of Industrial Plants and Machines	DLBROSIPM01_E	Safety of Industrial Plants and Machines	5	Exam
	7. Semester	10.	ELECTIVE A*		e.g. Industrial Robotics and Automation	10	
6. Semester		11.	ELECTIVE B*		e.g. Service Robotics	10	
	8.		ELECTIVE C*		e.g. Cognitive Robotics	10	
		12.	Bachelor Thesis		Bachelor Thesis / Thesis Defense	9 / 1	Bachelor Thesis / Presentation: Colloquium
Total 180 ECTS credits							

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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.

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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.
**Only availale in mystudies

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:
Industrial Robotics and Automation	Industrial Robotics and Automation	Industrial Robotics and Automation
Service Robotics	Service Robotics	Service Robotics
Cognitive Robotics	Cognitive Robotics	Cognitive Robotics
	AI Specialist	AI Specialist
	Autonomous Driving	Autonomous Driving
	Data Science and Deep Learning	Data Science and Deep Learning
	Python for Software Engineering	Python for Software Engineering
	IT Security	IT Security
	Mobile Software Engineering	Mobile Software Engineering
	Foreign Language	Internship**
		Studium Generale
		Foreign Language
		Mastering Prompts
		Career Development

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