

Sustainable Engineering and Future Technologies (EN)

Module Overview

SPO Version 2

Foundation studies		Main studies				
1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th Semester	7th Semester
5 ECTS Language Basics (DE)	5 ECTS Communication and Intercultural Competences (DE)	5 ECTS Process and Material Technologies (EN)	30 ECTS Industrial Internship	5 ECTS Control Systems (DE/EN)	5 ECTS Project and Quality Management (EN)	12 ECTS Bachelor Thesis
5 ECTS Hands-On experience (EN/DE)	5 ECTS Physics – Concepts and Methods (EN)	5 ECTS Machine Dynamics (EN)		5 ECTS Software Engineering and Object-oriented Programming (EN)	10 ECTS Compulsary Elective Module	
5 ECTS Machine Design and CAD (EN)	5 ECTS Technical Mechanics (EN)	5 ECTS Signals and Systems (DE/EN)		5 ECTS Sensors and Drives (EN)		
5 ECTS Mathematics I (EN)	5 ECTS Mathematics II (EN)	5 ECTS Mathematics III (EN)		5 ECTS Lab Project (DE)		10 ECTS Engineering Project
5 ECTS Electrical Engineering (EN)	5 ECTS Programming (EN/DE)	5 ECTS Microprocessor Systems (EN)		25 ECTS Specialization Modules: – Energy Science and Technology – Sustainable Mobility – Environmental Engineering – Data Based Engineering – Robotics and Cyberphysical Systems		
5 ECTS Basic Concepts of Sustainability (EN)	5 ECTS Electrical Engineering and Electronics (EN)	5 ECTS Interdisciplinary Lab Electronics and Physics (DE/EN)				
						2 ECTS Scientific Writing (DE)
						6 ECTS Social Skills / General Studies

Legend

Compulsory subject

Elective subjects + Specializations

Internship

Bachelor Thesis

ECTS Credit Points / European Credit Transfer System