

# Smart Factory – Suggested Curriculum Overview

1 Semester WS		Compulsory Courses		Elective Courses				
		Mechatronics and Control Techniques for Production Plants	Manufacturing Technology I	Industrial Intelligence Interlaced Quality Management				
		Model based Systems Engineering*	Process Analysis in Manufacturing Technology*					
		Language Courses		Elective Course    Elective Course  Choose 1-2 from these electives <ul style="list-style-type: none"> <li>• Advanced Software Engineering</li> <li>• Modeling, Model Reduction and Simulation in Laser Processing - Applications</li> <li>• Tribology</li> <li>• Gear and Transmission Technology</li> <li>• Simulation Techniques in Manufacturing Technology</li> <li>• High Precision Glass Optics Manufacturing</li> <li>• Control Engineering</li> <li>• Robotic Systems</li> </ul>				
		German language course						
				and				
2 Semester SS		Manufacturing Technology II	Production Management B					
		Embedded Systems*	Factory Planning*					
		Language Courses		Elective Course    Elective Course    Elective Course    Elective Course  Choose 3-4 from these electives <ul style="list-style-type: none"> <li>• Industrial Logistics</li> <li>• Production Metrology</li> <li>• Modeling, Model Reduction and Simulation in Laser Processing - Laser</li> <li>• Modeling, Model Reduction and Simulation in Laser Processing - Design</li> <li>• Multibody Dynamics</li> <li>• Welding and Joining Technologies</li> <li>• Industrial product development process - battery systems for hybrid and electric vehicles</li> <li>• Intelligent Monitoring of Engineering Systems</li> </ul>				
		German language course						
3 Semester WS		12-week Internship						
				Language Courses		Elective Course    Elective Course		
		Linguistic Elective	or Choose 1-2 from these electives <ul style="list-style-type: none"> <li>• Advanced Software Engineering</li> <li>• Modeling, Model Reduction and Simulation in Laser Processing - Applications</li> <li>• Tribology</li> <li>• Gear and Transmission Technology</li> <li>• Simulation Techniques in Manufacturing Technology</li> <li>• High Precision Glass Optics Manufacturing</li> <li>• Control Engineering</li> <li>• Robotic Systems</li> </ul>					
4 Semester SS		Master Thesis (six months)						

\*Track specific