

List of English lectures – Faculty of Industrial and Process Engineering

Bachelor´s degree programmes

Title (German title of lecture)	No	Semester	ECTS	Instructor	Content	Availability
TLM – Technical Logistics Management (German: Technisches Logistikmanagement)						
Process Modelling (Prozessmodellierung)	381153	4	4	Prof. Ole Wartlick	<ul style="list-style-type: none"> Process modelling methods and principles, such as DIN-Flussdiagramm and eEPK Process analysis and optimization principles 	Summer & winter term
Lean Management-Workshop (Veränderungsmanagement)	381312	6	4-6 (dep. on own literature presentation)	Prof. Susanne Heterich	<ul style="list-style-type: none"> Lean principles at production, logistics and administration Shopfloor management Value stream analysis and design Time studies (MTM and REFA) Change management Conflict management 	On request summer & winter term
Practical Studies at Companies/ KVP-Projects (Praktische Studien)	381313	6	8	Prof. Susanne Heterich	The students work in teams of 3-4 students at real-life logistics optimization problems at a partner company. They have to resolve the task by applying and training their broad technical and social competencies.	On request on team basis summer & winter term
Technical English (Fachenglisch)	381172	4	2	Prof. Annett Großmann	<ul style="list-style-type: none"> Presentations Job application Visit report / Call report Meetings Socialising International Business etiquette 	summer & winter term
Simulation of material flow systems (Logistiksystemplanung mit Simulation)	381161	4	4	Prof. Markus Fittinghoff		Depending on number of students/on request
Compulsatory optional Subject (Logistics) (Wahlpflichtfach)	381320	6	2	various lecturers (business simulation: Prof. Heterich)	<ul style="list-style-type: none"> varying logistics topics (e.g. Logistics Business Simulation as IT-based groupwork; simulation software is TOPSIM Logistics; very similar to business simulation at MOM but focused on production and logistics) 	On request

Studium Generale / General Studies	381332	6	2	various lecturers	General courses related to language, ethics, social and technical/organisational competence.	On request
Bachelor Thesis		7	12	all Professors	The bachelor's thesis is typically carried out at a company with strong logistics relation based on a real-life logistics, industrial engineering, or operations management problem. While solving the respective assignment, the student demonstrates his or her ability to successfully apply engineering methods and knowledge for the sake of a company. The thesis has to be completed within a timeframe of 4 months.	On request
TP total			34			

Title (German title of lecture)	No	Semester	ECTS	Instructor	Content	Availability
MOM – Manufacturing and Operations Management (German: Produktion und Prozessmanagement)						
Business English (B1 level) (Wirtschaftsenglisch)	122062	PPM1	2	Marion Erb	Speaking: small-talk, making phone calls, greetings, self-introduction Writing: job application, complaint mails Reading, comprehension and discussion about texts related to specific fields of economy, business organization, manufacturing and quality Compulsory attendance!	summer term, winter term
Operations Management und Change Management (German names of the lectures for your schedule: Produktionsmanagement 2, Change Management)	122140 (lectures: 122141, 122142)	PPM4	5	Prof. Patrick Balve	The lecture focuses mainly on principles, methods, and tools of the lean manufacturing approach, but also touches its various applications in the office environment. Reference is made to successful implementation strategies of lean. Besides providing a sound foundation on the background of lean manufacturing, the lecture deals with the following methods and tools: Eliminating Muda, Just-in-Time Production, Value-Stream Mapping, Quick Machine Changeover, Jidoka Concept, Stable and Standardised Processes, Continuous Improvement and Leadership. The subsequent lecture on change management broadens the already mentioned implementation focus with respect to achieving larger organisational changes in general. Special attention is given to the approach of J. P. Kotter.	summer term, winter term
Business Simulation (Unternehmensplanspiel)	122232	PPM7	3	Prof. Rolf Blumentritt	Together with your teammates you will form a business team that will take over the leadership of a company in the printing and copying industry. The business simulation tool TOPSIM – General Management is structured into two distinct phases: decision phases and evaluation phases. During decision phases, the participants	summer term, winter term

					<p>have to make operations decisions for their company. During evaluation phases, the participants will have to analyse the results of the previous period and test their overall business strategy against current economic conditions.</p>	
<p>Energy efficiency and environmental compatibility (Energieeffizienz und Umweltverträglichkeit)</p>	122203	PPM6	2	Filippos Kourkoulos M.Sc.	<p>Basics of energy Generating and storing of energy Using of energy in logistics and production processes Energy efficiency in electric mobility Energy efficiency in building technology Data collection, energy balance and energy management Methods to increase energy efficiency</p>	summer term, winter term
<p>Semester Project "Learning Factory" (Lernfabrik)</p>	122190	PPM6	16	Prof. Patrick Balve et al.	<p>The Heilbronn Learning Factory is a large scale student project based on the problem-based teaching approach.</p> <p>The main objective of each Learning Factory course is the development and manufacturing of a roughly specified product within time and budget constraints. The product itself differs from semester to semester.</p> <p>The activities performed by the students cover a wide range of industrial-like activities starting with prototyping and design, covering production engineering issue as well as quality management, ending with parts manufacturing, product assembly, and packaging.</p> <p>On occasion of the project kick-off, students are asked to decide for their functional specialization. Due to the overall interdisciplinary character of the course, project supervision is carried out by a team of professors.</p> <p>Important information for exchange students: Please consult with the lead supervisor Prof. Balve to find out ahead of time if your individual knowledge level is</p>	summer term, winter term

					suitable for the participation in the learning factory! Please be also aware that there is a series of scheduled dates throughout the semester with mandatory participation.	
Student Project (Projektarbeit)	122182	PPM6	5	Various lecturers	The student project focuses on a posted or self-chosen topic which can be worked on individually or in a group of 2 to 3 students. The project should be completed within one semester term.	summer term, winter term
Applied Study (Angewandte Studie)	122221	PPM7	7	Various lecturers	This project focuses on a posted or self-chosen academic topic which is to be worked on individually. The project should be completed within one semester term.	summer term, winter term
Bachelor Thesis	122240	PPM7	12	Various lecturers	The bachelor's thesis is preferably carried out at a manufacturing company (e. g. automotive) based on a real-life manufacturing, industrial engineering, or operations management problem. While solving the respective assignment, the student demonstrates his or her ability to successfully apply engineering methods and knowledge for the sake of a company. The thesis has to be completed within a timeframe of 4 months.	summer term, winter term
Total MOM			52			

Title (German title of lecture)	No	Semester	ECTS	Instructor	Content	Availability
EPE – Environment and Process Engineering (German: Umwelt- und Verfahrenstechnik)						
Laboratory studies: - Physics laboratory - Process engineering laboratory - Heat and mass transfer laboratory - Environmental technology laboratory - Instrumental analysis laboratory - Chemical engineering laboratory - Process modelling laboratory 4.5 ECTS Master			2 2 2 4 2 2 2		Practical laboratory studies, topics	On request
Bachelor Thesis		VU7	12	Various lecturers	The thesis has to be completed within a timeframe of 4 months.	summer term, winter term

Master degree programmes

Title (German title of lecture)	No	Semester	ECTS	Instructor	Content	Availability
MPE – Master Process Engineering (German: Master Verfahrenstechnik)						
Laboratory studies: - - Process modelling laboratory			4,5		Practical laboratory studies, topics	On request
Master Thesis		MVT3	12	Various lecturers	The thesis has to be completed within a timeframe of 4 months.	summer term, winter term

Title (German title of lecture)	No	Semester	ECTS	Instructor	Content	Availability
MTM – Master Technical Management						
Product Strategy and Brand Management	320212	1	4	Annette All- weil	<ul style="list-style-type: none"> • Customer-Based Brand Equity Framework • Building Brand Equity • Measuring Brand Equity • Customer Analysis • Customer-Based Brand Equity • Integrated Marketing Commu- nications 	winter term
International Sales Man- agement	320234	1	2	Doug Zer- now	<ul style="list-style-type: none"> • Basics of International Market- ing • Basics of Industrial Goods Mar- keting • Position of global distribution • Success factors of global sales • Tasks and roles in the global distribution • Structure of global sales • Managing global sales • Requirements in intercultural surroundings • Qualification for global Distribution 	winter term
Meeting Facilitation and Communication	320261	1	2	Prof. Patrick Balve	<ul style="list-style-type: none"> • Understanding the nuts and bolts of “meeting for results” • Preparing and running regular meetings as well as distin- guished workshops • Facilitating meetings in projects • Using the appropriate process tools 	winter term
Intercultural Management	320262	1	2	Prof. Rolf Blumentritt	<ul style="list-style-type: none"> • Comparative cross-cultural management • Corporate culture and em- ployee behaviour • Managing workforce diversity • Global teams • International projects • Motivation and performance Management • Leadership styles • Negotiation in international context 	winter term
Total MTM			10			