

Module number 32 d	Module title Study Option International Logistics (Schwerpunkt Internationale Logistik)		
Code ILM	Semes- ters 7/8	Number of WSH 12	Module offered Every academic year
Module coordinator Prof. Dr. Bick	Tuition type Seminar-style tuition with exercises		Module duration 2 semesters
Lecturers Prof. Dr. Bick Prof. Dr. Gänßbauer Prof. Dr. Dach	Module courses 1) Dispositive and Physical Logistics 2) Quantitative Methods in Logistics 3) Industrial Contract Logistics		Access requirements Course segment 2 Knowledge in Logistics
Learning outcomes		Students learn about the importance of logistics for a company based on a fundamental knowledge of materials and manufacturing economy. Students are able to efficiently design, manage and control material, goods and information flows within defined operational situations.	
Content		<u>Dispositive and Physical Logistics</u> <ul style="list-style-type: none"> • Procurement logistics and purchasing • Synchronised production procurement / the JIT concept • Material flow and layout planning <u>Quantitative Methods in Logistics</u> <ul style="list-style-type: none"> • Logistics controlling • Production planning • Methods of production control <u>International Contract Logistics</u> <ul style="list-style-type: none"> • Introduction/Organisational aspects • Decision-making/Procedures 	
Type of examination/ Requirements for the award of credit points		3 Written examinations Duration: 90 minutes each	
ECTS Credits 15	Workload 450 hours Contact/attendance time: 180 h Additional work: 270 h		Weighting of the grade in the overall grade 15

Course number 32d 1	Course title Dispositive and Physical Logistics (Dispositive und Physische Logistik)		
Code DLO	Semester 7	Number of WSH 4	Module offered Every academic year (winter semester)
Lecturer Prof. Dr. Bick	Tuition type Seminar-style tuition with exercises		Compulsory/Elective Compulsory
<p>Learning outcomes</p> <p>On completing the module the students will have achieved the following learning outcomes on the basis of scientific methods:</p> <p><u>Subject skills</u></p> <p>Students are aware of the importance of logistics for a company based on a fundamental knowledge of materials and manufacturing. They are able to efficiently design, manage and control material, goods and information flows within defined operational situations. By understanding the standard challenges of supply chains, they have a thorough grasp of the special importance of the interface between suppliers and buyers. Students also know the basic design principles of intra-logistics. They become conversant with different business models and business fields within logistics as well as particular demands on logistics managers. By the end of the course students are able to select and implement appropriate business models for a specific situation.</p> <p><u>Social skills</u></p> <p>Students are properly able to present results generated within a team to a specific target group.</p> <p><u>Method skills</u></p> <p>Students can understand logistical systems, analyse weaknesses and both optimise and recast them based on current scientific knowledge. Special consideration is given to the elimination of waste through changes of medium within all kinds of material and information flow designs.</p> <p><u>Personal skills</u></p> <p>Students are able to develop and refine their ideas as part of a team (team work skills), to professionally argue their viewpoints (reasoning skills) and to present results to a specific target group (presentation skills).</p>			
<p>Content</p> <ul style="list-style-type: none"> • Procurement logistics and purchasing <ul style="list-style-type: none"> ○ Overview of important methods ○ Design of material and information flow in procurement logistics ○ Operational procurement process ○ Procurement Marketing • Synchronised production procurement / the JIT concept <ul style="list-style-type: none"> ○ Approach ○ Selecting parts and suppliers ○ Structure of information flow ○ Design of material flow ○ Regional carrier concept 			

- Overview of tasks and functions of production logistics
- Material flow and layout planning
 - Target planning
 - Planning fundamentals
 - Production concept
 - Ideal planning
 - Real planning

Literature

Required reading

Lecture notes

Schulte, Christoph, Logistik, 6th ed., Verlag Franz Vahlen, München, 2012

Recommended reading

Kettner, Hans, Leitfaden zur systematischen Fabrikplanung, Fachbuchverlag Leipzig, 1984

Schönsleben, Paul, Integrales Logistik Management, 5th ed., Springer Verlag, Berlin, 2007

Schulte, Gerd, Material- und Logistikmanagement, 2nd ed., R. Oldenbourg Verlag, 2001

Vahrenkamp, Richard, 6th revised and expanded ed., R. Oldenbourg Verlag, 2007

Latest edition

Teaching and learning methods

Seminar-style tuition

Presentation by lecturer using PowerPoint and slides, lecture notes will be available

Type of examination/Requirements for the award of credit points

Written examination

Duration: 90 minutes

Other information

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ECTS Credits 5	Workload 150 hours Contact/attendance time: 60 h Additional work: 90 h	Course language German
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Course number 32d 2	Course title Quantitative Methods in Logistics (Quantitative Methoden in der Logistik)		
Code QLO	Semester 8	Number of WSH 4	Module offered Every academic year (summer semester)
Lecturers Prof. Dr. Bick Prof. Dr. Dach	Tuition type Seminar-style tuition with exercises		Compulsory/Elective Compulsory
<p>Learning outcomes</p> <p>On completing the module the students will have achieved the following learning outcomes on the basis of scientific methods:</p> <p><u>Subject skills</u></p> <p>Students gain an understanding of quantitative methods of logistics based on a fundamental knowledge of materials and manufacturing. They are able to efficiently design, manage and control material, goods and information flows within defined operational situations. In addition, students are familiar with logistics controlling and the application of contribution margin and process cost calculation, Key Performance Indicators (KPI), location planning and delivery tour optimisation.</p> <p><u>Social skills</u></p> <p>Students are able to properly present the results generated within the team to a specific target group.</p> <p><u>Method skills</u></p> <p>Students are conversant with quantitative methods used in logistics, and can apply them to specific problems and tasks.</p> <p><u>Personal skills</u></p> <p>Students are able to professionally defend their position (reasoning skills) and present results to a specific target group (presentation skills).</p>			
<p>Content</p> <p>The main topics include logistics controlling and the application of quantitative methods to selected logistics areas. Other important aspects are PPC functions and their implementation in PPC systems.</p> <ul style="list-style-type: none"> • Logistics controlling <ul style="list-style-type: none"> ○ Key performance indicators and systems ○ Contribution margin calculation ○ Process cost calculation • Quantitative methods in selected logistics areas <ul style="list-style-type: none"> ○ Network Planning ○ Inventory and warehousing ○ Handling/order picking ○ Transportation 			

<ul style="list-style-type: none"> • Production Planning and Control (PPC) <ul style="list-style-type: none"> ○ Target system ○ Production programme planning ○ Quantity planning ○ Scheduling and capacity planning ○ Implementation and control of production • PPC Systems <ul style="list-style-type: none"> ○ Overview ○ MRP ○ KANBAN ○ OPT 		
<p>Literature</p> <p><u>Required reading</u></p> <p>Lecture notes</p> <p><u>Recommended reading</u></p> <p>Hackstein, Rolf, PPS, 2nd ed., VDI-Verlag Düsseldorf 1989</p> <p>Rushton, A. / Croucher, P. / Baker, P.: The Handbook of Logistics and Distribution Management, 5th edition, London et. al. 2014</p> <p>Schulte, Christoph, Logistik, 6th ed., Verlag Franz Vahlen, München 2012</p> <p>Vahrenkamp, Richard / Kotzab, Herbert: Logistik, 7. Aufl., München 2012</p> <p>Weber, Jürgen / Schäffer, Utz: Einführung in das Controlling, 14. Aufl., Stuttgart 2014</p>		
<p>Teaching and learning methods</p> <p>Seminar-style tuition with a number of exercises</p> <p>Presentation by lecturer using PowerPoint and slides, lecture notes will be available</p> <p>Case study based on actual tender documents</p>		
<p>Type of examination/Requirements for the award of credit points</p>		<p>Written examination</p> <p>Duration: 90 minutes</p>
<p>Other information</p>		<p>Case studies on which students work are taken from practice.</p> <p>Guest Lecture</p>
<p>ECTS Credits</p> <p>5</p>	<p>Workload</p> <p>150 hours</p> <p>Contact/attendance time: 60 h</p> <p>Additional work: 90 h</p>	<p>Course language</p> <p>German</p>

Course number 32d 3	Course title Industrial Contract Logistics (Kontraktlogistik)		
Code KOL	Semester 7	Number of WSH 4	Module offered Every academic year (winter semester)
Lecturer Prof. Dr. Gänßbauer	Tuition type Seminar-style tuition with exercises		Compulsory/Elective Compulsory
<p>Learning outcomes</p> <p>On completing the module the students will have achieved the following learning outcomes on the basis of scientific methods:</p> <p><u>Subject skills</u></p> <p>Students understand the main reasons, objectives, variants and different possible procedures of logistics bid invitations. This knowledge enables them to prepare suitable enquiry documents in the role of a company inviting tenders, and to calculate price quotations for the customer on the basis of the customer's bid invitation documents and in the role of a logistics service provider.</p> <p><u>Method skills</u></p> <p>Students are familiar with quantitative methods of logistics and can apply them proficiently when processing logistical tasks, having regard to the specific circumstances and objectives of the case at hand. They are also familiar with the principles and practices of project management and so can provide the services that meet the customer's requirements as set out the logistics enquiry documents right up to the 'go live' point.</p> <p><u>Social skills</u></p> <p>Students are able to work towards given outcomes within a team environment (teamwork skills) and can present their findings and conclusions based on sound reasoning (presentation skills). They can defend their professional viewpoint (argumentation skills).</p> <p><u>Personal skills</u></p> <p>Students understand and appreciate the legal consequences of logistical decisions, and can incorporate them into their own value systems.</p>			
<p>Content</p> <ul style="list-style-type: none"> • Introduction to contract logistics management • Decision-making processes in logistics outsourcing • Logistics bid invitations • Procedures • Case study (actual example from practice) • Legal issues • Organisational aspects (project management) 			
<p>Literature</p> <p><u>Required reading</u></p> <p>Course notes</p> <p><u>Recommended reading</u></p>			

<p>Müller-Dauppert, Bernd, Logistik-Outsourcing, 2. Auflage, Vogel-Verlag, München, 2009 Possekkel, Marc, Ausschreibungen in der Logistik, 1. Auflage, Vogel-Verlag, München, 2008 Schulte, Christoph, Logistik, 3. Auflage, Verlag Franz Vahlen, München, 2006 Stölzle/Weber/Hofmann/Wallenburg: Handbuch Kontraktlogistik, 2007 Latest edition</p>		
<p>Teaching and learning methods Seminar-style tuition with a wide range of support exercises Presentation by lecturer using Powerpoint and slides; accompanying notes will be supplied Case study based on actual enquiry documents</p>		
<p>Type of examination/Requirements for the award of credit points</p>		<p>Written examination Duration: 90 minutes</p>
<p>Other information</p>		<p>Guest presentations by experts from industry</p>
<p>ECTS Credits 5</p>	<p>Workload 150 hours Contact/attendance time: 60 h Additional work: 90 h</p>	<p>Course language German</p>