



**MODULE HANDBOOK SPO2019**

---

**COURSE OF STUDY FOCUS**

**BW/  
PURCHASE AND LOGISTICS  
B.Sc.**

Status: April 2022

## TABLE OF CONTENTS

|  |    |
|--|----|
| List of abbreviations .....  | 2  |
| Alignment Matrix - "Purchasing and Logistics" study program focus..... | 2  |
| Second stage of study .....  | 3  |
| <i>PAL1020: Basics of Logistics Management (LM)</i> .....              | 3  |
| <i>PAL2030: Purchasing and Procurement Management (EBM)</i> .....      | 6  |
| <i>AQM 2300: Logistics and Production Planning (LPP)</i> .....         | 8  |
| <i>PAL 2020: Logistics Process Management (LPM)</i> .....              | 11 |
| <i>BIS2040: Business Process and Project Management</i> .....          | 13 |
| <i>LAW 2020: Advanced Law (IWR)</i> .....                              | 17 |
| <i>PAL 3110: Electives: Process Management in Practice (WPF)</i> ..... | 19 |
| <i>PAL 3200: Projects/Case Studies (PFS)</i> .....                     | 21 |
| <i>PAL 4030: Supply Chain Management (SCM)</i> .....                   | 24 |

## List of abbreviations

|         |   |
|---------|---|
| CR      | Credits according to the ECTS system                          |
| PLH     | Examination based on term paper                               |
| PLK     | Examination based on written exam                             |
| PLL     | Examination based on laboratory work                          |
| PLM     | Examination based on oral exam                                |
| PLP     | Examination based on project work                             |
| PLR     | Examination based on presentation                             |
| PLS     | Examination based on research project                         |
| PLT     | Examination based on written thesis                           |
| PVL     | Prerequisite examination                                      |
| PVL-BVP | Prerequisite examination for bachelor interim overall exam    |
| PVL-BP  | Prerequisite examination for final bachelor graduation        |
| PVL-MP  | Prerequisite examination for final master graduation          |
| PVL-PLT | Prerequisite examination for registration for bachelor thesis |
| SWS     | Contact hours per week  |
| UPL     | Non-graded examination (pass/fail only)                       |
| WPF     | elective subject  |

## Alignment Matrix - "Purchasing and Logistics" study program focus

| Modules | Enlargement of knowledge | Consolidation of knowledge | Instrumental competence | Systemic competence | Communicative competencies |
|---------|--------------------------|----------------------------|-------------------------|---------------------|----------------------------|
| PAL1020 | X                        | X                          | X                       |                     | X                          |
| PAL2030 | X                        | X                          |                         | X                   | X                          |
| AQM2300 | X                        | X                          | X                       |                     | X                          |
| PAL2020 |                          | X                          | X                       | X                   | X                          |
| BIS2040 |                          | X                          | X                       | X                   | X                          |
| LAW2020 | X                        | X                          |                         |                     |                            |
| PAL3110 |                          | X                          | X                       | X                   | X                          |
| PAL3200 |                          | X                          | X                       | X                   | X                          |
| PAL4030 |                          | X                          | X                       | X                   | X                          |

## Second stage of study

### PAL1020: BASICS OF LOGISTICS MANAGEMENT (LM)

| <b>Basics of Logistics Management</b> |  |
|---------------------------------------|--|
| Module ID                             | PAL1020  |
| Credits                               | 5  |
| SWS                                   | 5  |
| Semester                              | 2  |
| Frequency                             | Every semester   |
| Associated Courses                    | PAL1021 Logistics Functions and Systems (4 SWS / 4 Credits)<br>PAL1022 Business Simulation: Value Chains (1 SWS / 1 Credit)  |
| Prerequisites                         | GMT1203 Business management processes, functions and decisions I<br>BIS1052 Exercises on the computer<br>BIS1053 IT learning modules of the e-learning platform of the University  |
| Assessment Methods and duration       | Logistics functions and systems: PLP/ PLK - 60 minutes<br>Business Simulation: value chains: UPL   |
| Requirements for granting of credits  | PAL1021 Logistics Functions and Systems:<br>Successful passing of the examination performance<br><br>PAL1022 Business Simulation: Value Chains:<br>Successful passing of the examination performance   |
| Significance for the Final Grade      | The ungraded examination performance (Business Simulation: value chains) is not included in any grade. The remainder of the module (logistics functions and systems) is weighted with its credits and included in the bachelor's degree grade. |
| Planned group size                    | approx. 40 students  |
| Language                              | German   |
| Module Duration                       | 1 semester   |
| Module Coordinator                    | Berbig, Dominik  |
| Lecturer(s)                           | PAL1021 Logistics functions and systems: Berbig, Dominik<br>PAL1022 Business Simulation: value chains: Haas, Florian   |
| Subject area / course of study        | Purchasing and logistics   |
| Applicability in other programs       | none   |
| Pedagogical Approach                  | PAL1021 Logistics Functions and Systems:<br>Lecture and case study processing<br><br>PAL1022 Business Simulation: Value Chains:<br>Lecture and seminar-based teaching / business simulation  |
|                                       | <u>Logistics functions and systems:</u>  |

|                   |  |
|-------------------|--|
| <p>Objectives</p> | <ul style="list-style-type: none"> <li>• The students know the classical basic functions of logistics (transport, warehousing, production) and understand newer approaches, e.g. lean logistics, of process-oriented planning and control of the basic functions up to the consequence of an integrated approach of the value chain</li> <li>• Students will be familiar with the logistics systems used in the basic functions in procurement, production supply and distribution at the physical processing level</li> <li>• Students will be able to derive the main cost, performance and quality parameters related to the logistics functions</li> <li>• Students can apply quantitative models (e.g. route planning) to logistics and describe them</li> <li>• Students will be able to connect and conceptually integrate the levels of physical processing and information flow</li> </ul> <p><u>Business Simulation: Value Chains:</u></p> <ul style="list-style-type: none"> <li>• Students understand the interaction of functions within the company and with partners in the supply chain. They have experienced the bullwhip effect in a business simulation and recognized the influence of delivery times and information asymmetries on it.</li> <li>• Students are familiar with the Collaborative Planning, Forecasting and Replenishment (CPFR) approach as a way to prevent the bullwhip effect through cross-enterprise optimization.</li> </ul> <p>The module primarily serves to broaden and deepen knowledge. Both in the business simulation and through the processing of the case studies in working groups, the students acquire instrumental competence through the application reference and expand their communicative competences.</p> |
| <p>Content</p>    | <p><u>Logistics functions and systems:</u></p> <ul style="list-style-type: none"> <li>• Importance of logistics in the company</li> <li>• Transport and traffic</li> <li>• Warehousing, storage and picking systems</li> <li>• Information and communication systems</li> <li>• Main logistics performance indicators and costs</li> <li>• Distribution structures</li> <li>• Production logistics</li> <li>• Production leveling</li> <li>• Sustainability in logistics</li> <li>• Market situation and trends</li> </ul> <p><u>Business Simulation: Value Chains:</u></p> <ul style="list-style-type: none"> <li>• Structure as well as information and material flows and their interdependencies along the supply chain</li> <li>• Development of problem-solving approaches to avoid information asymmetries and bullwhip effects along the supply chain</li> </ul>   |

|                           |  |
|---------------------------|--|
|                           | <ul style="list-style-type: none"> <li>• Planning and forecasting processes for controlling a supply chain in practice</li> </ul>  |
| Relation to other Modules | The events are the basis for the PAL2020 Logistical Process Management module, which draws on the basic logistics functions and further elaborates the integrated value chain approach.  |
| Literature                | <ul style="list-style-type: none"> <li>• Arnold, D., Isermann, H., Kuhn, A., Tempelmeier, H.: Handbuch Logistik. Berlin.</li> <li>• Jacobs, R.; Chase, R.: Operations and supply chain management. New York.</li> <li>• Gleißner, H., Femerling, J. C.: Logistik, Grundlagen - Übungen – Fallbeispiele. Wiesbaden.</li> <li>• Gleißner, H., Möller, K.: Fallstudien Logistik, Wiesbaden.</li> <li>• Gudehus, T.: Logistik - Grundlagen, Strategien, Anwendungen. Berlin, Heidelberg.</li> <li>• Kummer, S., et al.: Grundzüge der Beschaffung, Produktion und Logistik. München.</li> <li>• Seifert, D.: Collaborative planning, forecasting and replenishment: ein neues Konzept für State-of-the-art-Supply-Chain-Management. Bonn.</li> <li>• Wannenwetsch, H.: Integrierte Materialwirtschaft, Logistik und Beschaffung. Berlin, Heidelberg.</li> </ul> <p>Latest edition in each case</p> <p>Lecture and case study support on e-learning platforms</p> |
| Workload                  | In addition to the 5 SWS x 15 = 75 h of attendance time, students are expected to spend an additional 75 h preparing for and following up on the courses and working on the case studies. This results in a total workload of 150 hours.   |
| Other                     | <p>Logistics functions and systems:<br/>The case studies are worked on in groups of three to five students.</p> <p>Business Simulation: Value Chains:<br/>The performance record is provided within the framework of the business simulation and lecture participation. The performance is not graded and thus corresponds to the examination form UPL.</p>  |
| Additional Remarks        | Logistics systems, logistics service providers, logistics functions, logistics planning, information and communication systems, value chain, logistics systems, market and customer orientation, holistic approach, flow orientation   |
| Last edited               | June 2021  |

**PAL2030: PURCHASING AND PROCUREMENT MANAGEMENT (EBM)**

| <b>Purchasing and procurement management</b> |   |
|--|---|
| Module ID                                    | PAL2030   |
| Credits                                      | 3   |
| SWS  | 6   |
| Semester                                     | 4   |
| Frequency                                    | Every semester  |
| Associated Courses                           | PAL2011 Purchasing and Procurement Management (4 SWS/6 Credits)   |
| Prerequisites                                | PAL 1021 Logistics functions and systems (4 SWS, 4 Credits)<br>PAL 1022 Business Simulation: Value Chains (1 SWS / 1 Credit)  |
| Assessment Methods and duration              | PLH/PLR/PLK - 60 minutes  |
| Requirements for granting of credits         | Successful completion of the examination(s)   |
| Significance for the Final Grade             | The module is weighted with its credits in the Bachelor final grade.  |
| Planned group size                           | Approx. 35 students   |
| Language                                     | German  |
| Module Duration                              | 1 semester  |
| Module Coordinator                           | Haas, Florian   |
| Lecturer(s)                                  | Haas, Florian   |
| Subject area / course of study               | Purchasing and logistics  |
| Applicability in other programs              | None  |
| Pedagogical Approach                         | Lecture and Presentation  |
| Objectives                                   | <p>The students</p> <ul style="list-style-type: none"> <li>• understand purchasing and procurement as a basic function of the company's internal value creation process and their significance for the business success of a company.</li> <li>• can apply strategies, methods and instruments of operational and strategic purchasing and master the essential terms and definitions.</li> <li>• have in-depth knowledge of the possible applications of digital information technologies in purchasing and procurement.</li> <li>• know the instruments and key figures of procurement controlling</li> <li>• are able to recognize signs of corruption and to name measures, structures and processes with which compliance can be ensured</li> <li>• understand the forms of organizational embedding and structures in purchasing</li> </ul> |

|                           |  |
|---------------------------|--|
|                           | <p>The module serves to broaden and deepen knowledge in the lecture part. By preparing a topic-related presentation (case studies, application examples or similar) with a subsequent presentation, students develop their systemic and communicative competence.</p>  |
| Content                   | <ul style="list-style-type: none"> <li>• Purchasing, procurement and supply chain management</li> <li>• Preparatory and streamlining functions</li> <li>• Demand planning</li> <li>• Inventory and replenishment planning</li> <li>• Order quantity determination</li> <li>• Supplier strategy and supplier management</li> <li>• Procurement process from tender to contract</li> <li>• Controlling in purchasing and procurement</li> <li>• Digital purchasing</li> <li>• Organizational embedding of purchasing &amp; procurement</li> </ul>  |
| Relation to other Modules | <p>Laying the foundations for the application of functions in purchasing and supply management for modules in the following semesters of study.</p>  |
| Literature                | <ul style="list-style-type: none"> <li>• Arnolds, H., et al.: Materialwirtschaft und Einkauf. Wiesbaden</li> <li>• Hartmann, H.: Materialwirtschaft – Organisation, Planung, Durchführung, Kontrolle. Gernsbach</li> <li>• Heß, G.: Strategischer Einkauf und Supply-Strategie. Wiesbaden</li> <li>• Kummer, S., et al.: Grundzüge der Beschaffung, Produktion und Logistik. München</li> <li>• Large, R.: Strategisches Beschaffungsmanagement. Wiesbaden</li> <li>• Oeldorf, G., Olfert, K.: Material-Logistik. Kiehl</li> <li>• Van Weele, A.; Eßig, M.: Strategische Beschaffung. Wiesbaden</li> <li>• Wannowetsch, H.: Integrierte Materialwirtschaft, Logistik und Beschaffung. Berlin, Heidelberg</li> </ul> <p>Latest edition in each case</p> |
| Workload                  | <p>In addition to the 4 SWS x 15 = 60 h attendance time, students are expected to spend another 120 h for preparation and follow-up of the course, literature study, and preparation of the presentations. This results in a total workload of 180 hours.</p>  |
| Other                     | <p>Successful completion of the module is a prerequisite examination for module THE4999 of the seventh semester of study.</p>  |
| Additional Remarks        | <p>Purchasing, Procurement Management, Target Costing, S&amp;OP, Digital Purchasing, Supplier Management, Supply Chain Management, Negotiation, e-Procurement, Demand Planning, Corruption &amp; Compliance</p>  |
| Last edited               | <p>June 2021</p>   |



**AQM 2300: LOGISTICS AND PRODUCTION PLANNING (LPP)**

| <b>Logistics and production planning</b> |  |
|--|--|
| Module ID                                | AQM2300  |
| Credits                                  | 3  |
| SWS                                      | 6  |
| Semester                                 | 3  |
| Frequency                                | Every semester   |
| Associated Courses                       | AQM2301 Methods of Logistics and Production Planning (3 SWS / 6 Credits)   |
| Prerequisites                            | None   |
| Assessment Methods and duration          | PLH/PLL/PLR/PLK - 60 minutes   |
| Requirements for granting of credits     | Successful completion of the examination(s)  |
| Significance for the Final Grade         | The module is weighted with its credits in the Bachelor final grade.   |
| Planned group size                       | Approx. 35 students  |
| Language                                 | German   |
| Module Duration                          | 1 semester   |
| Module Coordinator                       | Kuppinger, Bernd   |
| Lecturer(s)                              | Kuppinger, Bernd   |
| Subject area / course of study           | Quantitative methods and purchasing and logistics  |
| Applicability in other programs          | None   |
| Pedagogical Approach                     | Seminar teaching   |
| Objectives                               | <p>The students ...</p> <ul style="list-style-type: none"> <li>• are able to visualize simple process chains with suitable tools</li> <li>• know important parameters of production logistics and can determine the values of these parameters for concrete processes understand the basic differences between common production control methods such as BOA and KANBAN</li> <li>• can apply the method of value stream design</li> <li>• have basic knowledge of queuing theory               <ul style="list-style-type: none"> <li>○ gain detailed knowledge in the method of discrete event driven simulation</li> <li>○ can assess whether a given problem requires the use of simulation technology</li> <li>○ Have the ability to understand and analyze simulation models and check them for plausibility and validity</li> <li>○ are able to represent queuing systems of simple to medium complexity in a simulation model they have created themselves</li> </ul> </li> </ul> |

|                                  |  |
|----------------------------------|--|
|                                  | <ul style="list-style-type: none"> <li>○ possess the necessary knowledge to gain logistically relevant insights into the mapped process through systematic experimentation on the simulation model</li> </ul>  |
| <p>Content</p>                   | <p>Analysis of process chains with parameters</p> <ul style="list-style-type: none"> <li>• Calculation of lead times, inventories, capacity utilization</li> <li>• Little's Law</li> <li>• Flowchart</li> <li>• Illustration with Excel</li> <li>• Discrete event oriented simulation</li> </ul> <p>Queuing Theory</p> <ul style="list-style-type: none"> <li>• Description and characterization of simple queuing systems</li> <li>• Analysis of M/M/1 and M/M/s queues</li> </ul> <p>Method of event-driven simulation</p> <ul style="list-style-type: none"> <li>• Acquisition of basic knowledge in the use of the "Arena" software</li> <li>• Creation of your own simulation model</li> <li>• Validation and evaluation of the self-created model</li> </ul> <p>The module serves to broaden and deepen knowledge in the lecture part. By working out a simulation model in group work, the students develop their instrumental and communicative competence.</p>                          |
| <p>Relation to other Modules</p> | <p>Creation of basics in the methodical-instrumental area for the modules in the following study semesters</p>   |
| <p>Literature</p>                | <ul style="list-style-type: none"> <li>• Bertagnolli, F.: Lean Management: Einführung und Vertiefung in die japanische Management-Philosophie. Springer Gabler</li> <li>• Erlach, K.: Wertstromdesign: Der Weg zur schlanken Fabrik. Springer</li> <li>• Gienke, H.; Kämpf, R.: Handbuch Produktion. Hanser</li> <li>• Gohout, W.: Operations Research (Kapitel 12). Oldenbourg-Verlag</li> <li>• Hopp, W.J.; Spearman, M.L.: Factory Physics. McGraw Hill</li> <li>• Kelton, D. W., et al.: Simulation with Arena with CDROM. McGraw Hill</li> <li>• Koether, R.: Taschenbuch der Logistik. Fachbuchverlag Leipzig</li> <li>• Kummer, S., et al.: Grundzüge der Beschaffung, Produktion und Logistik. Pearson</li> <li>• Lödding, H.: Verfahren der Fertigungssteuerung. Springer</li> <li>• Rother, M.; Shook, J.: Sehen Lernen. Lean Management Institut</li> <li>• Schönsleben, P.: Integrales Logistikmanagement. Springer</li> <li>• Sommerer, G.: Unternehmenslogistik. Hanser</li> </ul> |

|                    |  |
|--------------------|--|
|                    | <ul style="list-style-type: none"> <li>• Thonemann, U.: Operations Management. Pearson</li> <li>• Zimmermann, W.: Operations Research (Kapitel 13). Oldenbourg-Verlag.</li> </ul> <p>Latest edition in each case</p>   |
| Workload           | In addition to the 3 SWS x 15 = 45 h attendance time, the students are expected to spend 135 h for the preparation and wrap-up of the course, the literature study and the development of the simulation model. This results in a total workload of 180 hours. |
| Other              | Successful completion of the module is a prerequisite examination for module THE4999 of the seventh semester of study.   |
| Additional Remarks | Arena simulation, production control, production planning, simulation, queueing theory, value stream mapping, random numbers   |
| Last edited        | June 2021  |

**PAL 2020: LOGISTICS PROCESS MANAGEMENT (LPM)**

| <b>Logistical process management</b> |  |
|--------------------------------------|--|
| Module ID                            | PAL2020  |
| Credits                              | 4  |
| SWS                                  | 7  |
| Semester                             | 4  |
| Frequency                            | Every semester   |
| Associated Courses                   | PAL2020 Logistics Process Management   |
| Prerequisites                        | PAL1021 Logistics functions and systems<br>PAL1022 Business Simulation: value chain<br><br>The following courses are additionally recommended in advance:<br>PAL2011 Purchasing and Procurement Management<br>AQM2301 Methods of Logistics and Production Planning   |
| Assessment Methods and duration      | PLP  |
| Requirements for granting of credits | Successful passing of the examination performance  |
| Significance for the Final Grade     | The module is weighted with its credits in the Bachelor final grade.   |
| Planned group size                   | Approx. 35 students  |
| Language                             | German   |
| Module Duration                      | 1 semester   |
| Module Coordinator                   | Schätter, Frank  |
| Lecturer(s)                          | Schätter, Frank  |
| Subject area / course of study       | Purchasing and logistics   |
| Applicability in other programs      | None   |
| Pedagogical Approach                 | Lecture and project work   |
| Objectives                           | <p>The students</p> <ul style="list-style-type: none"> <li>• have basic knowledge regarding the strategies, methods and tools of logistics process management and can apply these approaches</li> <li>• know the management tools for the representation, analysis and optimization of logistical resources at the individual stages of the supply chain</li> <li>• are able to apply these management tools in the context of supply chain management in a problem-oriented manner</li> </ul> <p>The module serves to deepen knowledge, building on the basics of the previous semesters. Through the in-depth elaboration of given workshop topics, students acquire instrumental and systemic competence; through the preparation and implementation of the workshops, they develop their communicative</p> |

|                           |  |
|---------------------------|--|
|                           | <p>competence. Cross-cutting topics from the lecture and workshops will be explored in depth in a written assignment (term paper).</p>   |
| Content                   | <ul style="list-style-type: none"> <li>• From logistics to supply chain management</li> <li>• Process-oriented view of the supply chain</li> <li>• Decision problems along operational, tactical, and strategic supply chain management</li> <li>• Network planning and location planning</li> <li>• Process modeling methods, e.g. Supply Chain Operation Reference Model (SCOR), Sankey diagram, material flow matrix and value stream analysis</li> <li>• Principles and concepts for improving logistics processes, e.g. continuous improvement process, business process reengineering and value stream design</li> <li>• In-depth aspects and current topics of supply chain management</li> </ul>   |
| Relation to other Modules | <p>Preparation of all business management modules in the second stage of study.</p>  |
| Literature                | <ul style="list-style-type: none"> <li>• Arnolds, H., et al.: Materialwirtschaft und Einkauf. Springer Gabler</li> <li>• Liebethuth, T.: Prozessmanagement in Einkauf und Logistik: Instrumente und Methoden für das Supply Chain Process Management. Springer Gabler</li> <li>• Schönsleben, P.: Integrales Logistikmanagement, Springer</li> <li>• Tempelmeier, H.: Begriff der Logistik, logistische Systeme und Prozesse. Springer Vieweg.</li> <li>• Wegner, U.; Wegner, K.: Einführung in das Logistikmanagement: Prozesse – Strukturen – Anwendungen. Springer Gabler</li> <li>• Werner, H.: Supply Chain Management: Grundlagen, Strategien, Instrumente und Controlling. Springer Gabler.</li> <li>• Wöhe, G.: Einführung in die allgemeine Betriebswirtschaftslehre. Vahlen.</li> </ul> <p>Latest edition in each case</p> |
| Workload                  | <p>In addition to the 4 SWS x 15 = 60 h of attendance time, students are expected to spend an additional 150 h on studying literature, preparing and preparing workshop topics, and organizing and conducting workshops. This results in a total workload of 210 hours.</p>  |
| Other                     | <p>Successful completion of the module is a prerequisite examination for module THE4999 of the seventh semester of study.</p>  |
| Additional Remarks        | <p>Logistics process management, supply chain management, industrial logistics, process costing, process modeling</p>  |
| Last edited               | <p>March 2022</p>  |

**BIS2040: BUSINESS PROCESS AND PROJECT MANAGEMENT**

| <b>Business process and project management</b> |  |
|--|--|
| Module ID                                      | BIS2040  |
| Credits  | 4  |
| SWS  | 7  |
| Semester                                       | 6  |
| Frequency                                      | Every semester   |
| Associated Courses                             | BIS2041 Business Process Management (2 SWS / 2 Credits)<br>BIS20411 Transactional Processing Systems (2 SWS / 2 Credits)<br>BIS2042 Methods of Project Management (2 SWS / 3 Credits)  |
| Prerequisites                                  | BIS1051 Introduction to Business Informatics   |
| Assessment Methods and duration                | BIS2041 Business Process Management and BIS20411 Transactional Processing Systems: PLL / PLK - 60 minutes<br>BIS2042 Project Management Methods: PLP / PLK - 60 minutes  |
| Requirements for granting of credits           | Passing of the respective examination performance in the associated courses  |
| Significance for the Final Grade               | The module is weighted with its credits in the Bachelor final grade.   |
| Planned group size                             | BIS2041 Business Process Management: Max. 50 students per group<br>BIS20411 Transactional Processing Systems: Max. 25 students per group<br>BIS2042 Methods of Project Management: Max. 50 students per group  |
| Language                                       | German   |
| Module Duration                                | 1 semester   |
| Module Coordinator                             | Morelli, Frank   |
| Lecturer(s)                                    | Schätter, Frank; Morelli, Frank; Schuler, Joachim; Berbig, Dominik   |
| Subject area / course of study                 | Business Administration / Business Informatics - Management and IT   |
| Applicability in other programs                | Offered concurrently in the Bachelor's degree programs:<br>Business Administration / Business Information Systems – Management & IT Business Administration / Purchasing and Logistics   |
| Pedagogical Approach                           | BIS2041 Business Process Management: Lecture with workshops, exercises, and lab work<br>BIS20411 Transactional Processing Systems: Lecture with workshops, exercises and lab work.<br>BIS2042 Methods of Project Management: Lectures with case study processing, group presentations and workshops. |

|                   |  |
|-------------------|--|
| <p>Objectives</p> | <p><u>Business process management and transactional processing systems:</u></p> <p>The students</p> <ul style="list-style-type: none"> <li>• Understand basic concepts of enterprise process design and current trends in the field.</li> <li>• have the ability to independently map concrete business processes using the BPMN 2.0 modeling method, analyze them with the help of organizational as well as IT-supported tools, and provide optimization proposals</li> <li>• understand business processes as a starting point for the design of operational information systems</li> <li>• recognize the interactions and the interaction of the essential business processes from the area of logistics such as procurement, inventory management, supply chain, etc. and their mapping to IT systems using the example of SAP S/4HANA as well as the importance of integration aspects in ERP systems</li> <li>• understand business processes as a starting point for the design of operational information systems</li> <li>• understand basic concepts of ERP systems in logistics using SAP MM as an example.</li> <li>• can explain relationships between framework conditions in the company and system characteristics.</li> <li>• have the ability to explain integration aspects and automation potentials between operational logistics processes and the reference to financial accounting in an exemplary manner.</li> <li>• have competencies in the application of IT-based optimization principles in logistics business processes.</li> <li>• can use SAP ERP as a user in the field of logistics.</li> </ul> <p><u>Methods of project management:</u></p> <p>The students</p> <ul style="list-style-type: none"> <li>• are proficient in method-based planning and structuring of complex projects</li> <li>• acquire cooperative and coordinative skills through team exercises</li> <li>• learn both classic project management and agile project management (SCRUM method)</li> <li>• can apply the acquired knowledge to student projects and to projects in the field of business process management.</li> </ul> <p>The module serves to deepen knowledge, building on the basics of the previous semesters. Through the in-depth elaboration of given workshop topics, exercises, laboratory work and projects, students acquire instrumental and systemic competence; through the preparation and implementation of the workshops and projects, they develop their communicative skills.</p> |
| <p>Content</p>    | <p><u>Business process management and transactional processing systems:</u></p>  |

|                                  |   |
|----------------------------------|---|
|                                  | <p>This event conveys</p> <ul style="list-style-type: none"> <li>• a general overview of the topic "business process management</li> <li>• basic concepts for business process design as well as current trends in this area</li> <li>• methodical procedures for modeling, analyzing and optimizing business processes.</li> <li>• in detail: process management basics, process modeling with BPMN 2.0, principles and organization of business process management, SCOR model, process analysis and optimization as well as business process management in the company</li> <li>• Business processes as a starting point for the design and optimization of operational information systems</li> <li>• basic concepts of software application systems in logistics</li> <li>• SAP S/4HANA basics such as organizational units and master and transaction data in the area of logistics</li> <li>• Mapping of logistics business processes to the ERP system SAP S/4HANA</li> </ul> <p><u>Methods of project management:</u><br/>This event offers</p> <ul style="list-style-type: none"> <li>• a general overview of the topic "project management" according to the IPMA approach. The focus is on the acquisition of basic planning and control competencies in complex projects</li> <li>• especially on the basics of project management: phase models in project management, project planning and project control, project organization, as well as project controlling and multi-project management (program management).</li> </ul> |
| <p>Relation to other Modules</p> | <p>The module builds on the module "Quantitative Methods 1" (network planning technique).</p>   |
| <p>Literature</p>                | <ul style="list-style-type: none"> <li>• Brandstätter, J.: Agile IT-Projekte erfolgreich gestalten. Risikomanagement als Ergänzung zu Scrum. Springer Vieweg Verlag, Wiesbaden.</li> <li>• Dechange, A.: Projektmanagement – schnell erfasst. Springer Gabler Verlag, Berlin, Heidelberg.</li> <li>• Freund, J.; Rücker, B.: Praxishandbuch BPMN. Mit Einführung in DMN. Carl Hanser Verlag, München.</li> <li>• Gadatsch, A.: Grundkurs Geschäftsprozess-Management. Analyse, Modellierung, Optimierung und Controlling von Prozessen. Springer Vieweg Verlag, Wiesbaden.</li> <li>• Hellberg, T.: Einkauf mit SAP MM. Prozesse, Funktionen, Customizing. Galileo Press, Bonn.</li> <li>• Kuster, J., et al.: Handbuch Projektmanagement. Agil – Klassisch – Hybrid. Springer Gabler Verlag, Berlin, Heidelberg.</li> </ul>  |



|                           |  |
|---------------------------|--|
|                           | <ul style="list-style-type: none"> <li>• Liebetruth, T.: Prozessmanagement in Einkauf und Logistik: Instrumente und Methoden für das Supply Chain Process Management. Springer Gabler Verlag, Wiesbaden.</li> <li>• Maximini, D.: Scrum – Einführung in der Unternehmenspraxis. Von starren Strukturen zu agilen Kulturen. Springer Gabler Verlag, Berlin, Heidelberg.</li> <li>• Meyer, H.; Reher, H.-J.: Projektmanagement. Von der Definition über die Projektplanung zum erfolgreichen Abschluss. Springer Gabler Verlag, Berlin, Heidelberg.</li> <li>• Reinkemeyer, L.: Process Mining in Action. Principles, Use Cases and Outlook. Springer Verlag, Heidelberg.</li> <li>• Schulz, O.: Der SAP-Grundkurs. Für Einsteiger und Fortgeschrittene. SAP-Press, Boston.</li> <li>• Schwaber, K.; Sutherland, J.: Der Scrum Guide. Der gültige Leitfaden für Scrum: Die Spielregeln.</li> </ul> |
| <p>Workload</p>           | <p><u>BIS2041 Business Process Management</u><br/>(2 credits, workload 60 h)<br/>Contact hours: 2 x 15 SWS approx. 20 h<br/>Preparation and rework approx. 20 h<br/>Exam preparation approx. 20 h</p> <p><u>BIS20411 Transactional Processing Systems</u><br/>(2 credits, workload 60 h)<br/>Contact hours: 2 x 15 SWS = 30 h<br/>Preparation and rework 10 h<br/>SAP exercises, eLearning units: 20 h</p> <p><u>BIS2042 Methods of Project Management</u><br/>(3 credits, workload 90 h)<br/>Contact hours 2 x 15 SWS approx. 20 h<br/>Preparation and rework approx. 20 h<br/>Exam preparation approx. 20 h<br/>Case study processing approx. 30 h</p>   |
| <p>Other</p>              | <p>The module constitutes a prerequisite examination for the thesis module THE4999.</p> <p>The examination performance PLP is performed within the scope of the course "Methods of Project Management" basically in the form of teamwork in groups.</p> <p>The sub-course BIS2042 Methods of Project Management is usually organized as a fast track (completion of the examination(s) already before the normal examination period).</p>  |
| <p>Additional Remarks</p> | <p>Business process management, business processes, business process modeling, business process analysis, business process optimization, principles of business process management, organization of business process management, business process maturity models, business process management, BPMN, supply chain management, SCOR model project management, phase models, project planning, project control, project organization, project controlling, multi-project management, program management, agile project management, SCRUM, hybrid project management, stakeholder analysis, risk analysis, earned value analysis, milestone trend analysis, ERP systems, transaction systems, SAP S/4HANA, digital transformation, digital technologies</p>  |
| <p>Last edited</p>        | <p>June 2021</p>   |

**LAW 2020: ADVANCED LAW (IWR)**

| <b>Advanced Law</b>                  |  |
|--------------------------------------|--|
| Module ID                            | LAW2020  |
| Credits                              | 4  |
| SWS                                  | 5  |
| Semester                             | 4  |
| Frequency                            | Every semester   |
| Associated Courses                   | LAW2024 International Business Law   |
| Prerequisites                        | LAW1011: Contract Management I (4 SWS / 5 Credits)<br>LAW1201: Contract Management II and Credit Protection Law (6 SWS / 6 Credits)  |
| Assessment Methods and duration      | PLK - 90 minutes   |
| Requirements for granting of credits | Successful passing of the examination performance  |
| Significance for the Final Grade     | The module is weighted with its credits in the Bachelor final grade  |
| Planned group size                   | Approx. 35 students  |
| Language                             | German   |
| Module Duration                      | 1 semester   |
| Module Coordinator                   | Willburger, Andreas  |
| Lecturer(s)                          | Willburger, Andreas; Kroschwald, Steffen   |
| Subject area / course of study       | Law  |
| Applicability in other programs      | Lecture  |
| Pedagogical Approach                 | None   |
| Objectives                           | <p>The students</p> <ul style="list-style-type: none"> <li>• understand international regulatory models (e.g. CISG, CMR)</li> <li>• solve legal cases in the field of international trade (e.g. sales, transport, agency and license agreements) orally and in writing and formulate their arguments accordingly.</li> <li>• to recognize problems in different international commercial transactions.</li> </ul> <p>The module serves to achieve the program objectives "expertise", "communication skills" and "internationalization".</p> |
| Content                              | <ul style="list-style-type: none"> <li>• Uniform Law and Private International Law</li> <li>• Private International Law of Contracts, Torts and Property Law</li> </ul>  |

|                           |  |
|---------------------------|--|
|                           | <ul style="list-style-type: none"> <li>• The UN Convention on Contracts for the International Sale of Goods (CISG)</li> <li>• INCOTERMS</li> <li>• International product liability</li> <li>• Documents in international payment transactions</li> <li>• Payment security in international legal relations</li> <li>• International transportation contracts</li> <li>• Commercial agents and authorized dealers</li> <li>• International license agreements</li> <li>• Dispute resolution in international legal relations</li> </ul> |
| Relation to other Modules | Deepens the knowledge acquired in the previous law lectures.   |
| Literature                | In addition to the 4 SWS x 15 = 60 h attendance time, students are expected to spend another 90 h for preparation and wrap-up of the course, literature study and preparation of the final exam. This results in a total workload of 150 hours.  |
| Workload                  | Gildeggen/Willburger, Internationale Handelsgeschäfte, Verlag Vahlen, 5th ed. 2018   |
| Other                     | Successful completion of the module is a prerequisite examination for module THE4999 of the seventh semester of study.   |
| Additional Remarks        | International Commercial Transactions, IPR, UN Sales Law, International Transport Law, Commercial Agents and Dealers, License Agreements, International Litigation and Arbitration   |
| Last edited               | April 2022   |

**PAL 3110: ELECTIVES: PROCESS MANAGEMENT IN PRACTICE (WPF)**

| <b>Electives: Process management in practice</b> |  |
|--|--|
| Module ID  | PAL3110  |
| Credits  | 6  |
| SWS  | 6  |
| Semester   | 4  |
| Frequency  | Every semester   |
| Associated Courses                               | BIS3012 Transactional Processing Systems in Logistics (2 SWS/3 Credits)<br>PAL3111 e-business and Supply Chains (2 SWS/3 Credits)<br>PAL3112 Corporate Risk Management (2 SWS/3 Credits)<br>PAL3113 Industrial Process Automation Management (2 SWS/3 Credits)<br>HRM3101 Leadership (2 SWS/3 Credits)<br>IDS3010 Interdisciplinary Studies (2 SWS/3 Credits)<br><br>The above-mentioned courses are offered in English. Alternative or supplementary offers - also in German - are possible on the part of the study program. |
| Prerequisites                                    | Successfully completed first stage of studies  |
| Assessment Methods and duration                  | BIS3012 Transactional Processing Systems in Logistics: PLL/PLP/PLR<br>PAL3111 e-business and Supply Chains: PLH/PLR/PLK - 60 minutes<br>PAL3112 Corporate Risk Management: PLH/PLR/PLK – 60 minutes<br>PAL3113 Industrial Process Automation Management: PLH/PLR/PLK – 60 minutes<br>HRM3101 Leadership: PLH/PLR/PLK - 60 minutes<br>IDS3010 Interdisciplinary Studies: dependent on specific credit.  |
| Requirements for granting of credits             | Successful completion of the respective examination(s). WPF offerings totaling 6 credits must be successfully completed.   |
| Significance for the Final Grade                 | The module is weighted with its credits in the Bachelor final grade.   |
| Planned group size                               | Approx. 35 students  |
| Language   | English / German   |
| Module Duration                                  | 1 semester   |
| Module Coordinator                               | Dean of Students on the Faculty Board  |
| Lecturer(s)                                      | Professors of different courses of study/subject areas   |
| Subject area / course of study                   | Purchasing and logistics   |
| Applicability in other programs                  | Individual WPF offerings can also be taken by other majors.  |
| Pedagogical Approach                             | Seminar teaching   |

|                           |   |
|---------------------------|---|
| Objectives                | <p>The WPF module is designed to provide students with the opportunity to set an individual focus related to their course of study. The objectives differ depending on the WPF offered.</p> <p>The module primarily serves to broaden and deepen knowledge and to acquire instrumental competence.</p>  |
| Content                   | <ul style="list-style-type: none"> <li>• Transaction systems in logistics</li> <li>• e-business and Supply Chains</li> <li>• Corporate Risk Management</li> <li>• Industrial Process Automation Management</li> <li>• Employee management</li> <li>• Interdisciplinary studies</li> </ul>   |
| Relation to other Modules | -   |
| Literature                | Depending on the selected WPF offer   |
| Workload                  | 2 x 15 = 30 h per course, plus 60 h each for preparation and wrap-up, independent study of literature, processing of case studies and exercises, and exam preparation. This results in a total workload of 90 hours.  |
| Other                     | <p>The module or an individual course of the module can also be completed as part of a semester abroad. Modules or courses related to the focus of the study program are eligible for recognition.</p> <p>English language offerings within the module are offered as part of the International Study Program. Credits earned will count toward the 24-credit requirement existing in the program.</p> <p>The elective courses, especially if they are offered in English by visiting professors, can be organized as fast-track courses with an examination well before the normal examination period.</p> |
| Additional Remarks        | Transaction systems, logistics and IT, e-business, employee management, interdisciplinary projects, corporate risk management, industrial process automation, digitalization, big data, supply chain  |
| Last edited               | April 2022  |

**PAL 3200: PROJECTS/CASE STUDIES (PFS)**

| <b>Projects/case studies</b>         |  |
|--------------------------------------|--|
| Module ID                            | PAL3200  |
| Semester                             | 6  |
| Credits                              | 10   |
| SWS                                  | 6  |
| Frequency                            | Every semester   |
| Associated Courses                   | PAL3201 Project (4 SWS/7 Credits)<br>PAL3202 Case Studies (2 SWS/3 Credits)  |
| Prerequisites                        | <p>PAL1021 Logistics functions and systems<br/>           PAL1022 Business Simulation: Value Chains<br/>           PAL2011 Purchasing and Procurement Management<br/>           BIS2042 Methods of Project Management<br/>           INT3020 Practical semester</p> <p>The following courses are additionally recommended in advance:<br/>           AQM2301 Methods of logistics and production planning<br/>           PAL2021 Logistics process management<br/>           BIS2041 Business Process Management and Transaction Systems</p> |
| Assessment Methods and duration      | PAL3201 Project: PLP<br>PAL3202 Case Studies: PLR/PLL/PLP  |
| Requirements for granting of credits | Successful completion of the respective examination(s) in each case  |
| Significance for the Final Grade     | The module is weighted with its credits in the Bachelor final grade.   |
| Planned group size                   | Approx. 30 students  |
| Language                             | German   |
| Module Duration                      | 1 semester   |
| Module Coordinator                   | Berbig, Dominik  |
| Lecturer(s)                          | Haas, Florian; Berbig, Dominik; Schätter, Frank  |
| Subject area / course of study       | Purchasing and logistics   |
| Applicability in other programs      | None   |
| Pedagogical Approach                 | Seminar-based teaching and project work  |
| Objectives                           | <p><u>Project</u><br/>           The students</p> <ul style="list-style-type: none"> <li>• know the principle interactions in complex purchasing and logistics projects</li> <li>• apply the management tools of the course within the framework of a practical project</li> <li>• can apply the learned strategies and methods from the subject area in a problem-oriented manner</li> </ul>  |

|                           |  |
|---------------------------|--|
|                           | <ul style="list-style-type: none"> <li>• can use the instruments of business and project management in a targeted manner</li> </ul> <p><u>Case studies</u><br/>The students</p> <ul style="list-style-type: none"> <li>• know the potentials and effects of digitalization on the management of the supply chain.</li> <li>• are able to identify and analyze weak points in organizations, processes and systems for selected application examples by means of software tools and using statistical data, and to optimize these based on their findings.</li> <li>• are able to evaluate different scenarios for the solution of typical optimization problems for a company-specific situation along the supply chain.</li> </ul> <p>In addition to deepening of knowledge, the module primarily serves the acquisition of instrumental, systemic competence and communicative competence.</p>                   |
| Content                   | <p><u>Project</u></p> <ul style="list-style-type: none"> <li>• Project Management</li> <li>• Analysis and design of business processes in practice</li> <li>• Resource planning in the operational and strategic framework</li> <li>• Functional interrelationships of internal logistics with the logistical processes on the supplier side and customer side</li> </ul> <p><u>Case studies</u></p> <ul style="list-style-type: none"> <li>• Development of information systems along the supply chain</li> <li>• Industry and function-specific standards</li> <li>• Information networks and digital collaboration at local and global level</li> <li>• Potentials and developments through digitalization</li> </ul>   |
| Relation to other Modules | The module builds on the modules in the pre-semester major.  |
| Literature                | <p><u>Project</u></p> <ul style="list-style-type: none"> <li>• Heß, G.: Strategischer Einkauf und Supply-Strategie. Springer, Wiesbaden.</li> <li>• Meyer, H.; Reher, H.-J.: Projektmanagement. Von der Definition über die Projektplanung zum erfolgreichen Abschluss. Springer Gabler, Wiesbaden.</li> <li>• Oeldorf, G.; Olfert, K.: Material-Logistik. Kiehl, Herne</li> <li>• Van Weele, A.; Eßig, M.: Strategische Beschaffung. Springer, Wiesbaden.</li> <li>• Werner, H.: Supply Chain Management – Grundlagen, Strategien, Instrumente und Controlling. Springer Gabler, Wiesbaden.</li> </ul> <p><u>Case studies</u></p> <ul style="list-style-type: none"> <li>• Arnolds, H., et al.: Materialwirtschaft und Einkauf. Springer Gabler, Wiesbaden.</li> <li>• Kollmann, T.: E-Business – Grundlagen elektronischer Geschäftsprozesse in der digitalen Wirtschaft. Springer Gabler, Wiesbaden.</li> </ul> |

|                    |   |
|--------------------|---|
|                    | <ul style="list-style-type: none"> <li>Werner, H.: Supply Chain Management – Grundlagen, Strategien, Instrumente und Controlling. Springer Gabler, Wiesbaden.</li> </ul> <p>Latest edition in each case</p>   |
| Workload           | In addition to the 6 SWS x 15 = 90 h of attendance time, students are expected to spend an additional 210 h working on practical problems and case studies, preparing and conducting presentations, and final documentation. This results in a total workload of 300 hours. |
| Additional Remarks | Practical project, design of logistical processes, use of information systems in purchasing and logistics   |
| Last edited        | June 2021   |



**PAL 4030: SUPPLY CHAIN MANAGEMENT (SCM)**

| <b>Supply Chain Management</b>       |  |
|--------------------------------------|--|
| Module ID                            | PAL4030  |
| Semester                             | 7  |
| Credits                              | 8  |
| SWS                                  | 4  |
| Frequency                            | Every semester   |
| Associated Courses                   | PAL4031 Supply Chain Management (4 SWS / 8 Credits)  |
| Prerequisites                        | PAL1021 Logistics functions and systems<br>PAL1022 Business Simulation: Value Chains<br>PAL2011 Purchasing and Procurement Management<br>AQM2301 Methods of logistics and production planning<br>PAL2021 Logistics process management<br>BIS2041 Business Process Management and Transaction Systems<br>BIS2042 Methods of Project Management<br>INT3020 Practical semester<br><br>The following courses are additionally recommended in advance:<br>PAL3201 Project<br>PAL3202 Case Studies |
| Assessment Methods and duration      | PLH/PLR/PLP  |
| Requirements for granting of credits | Successful completion of the examination(s)  |
| Significance for the Final Grade     | The module is weighted with its credits in the Bachelor final grade.   |
| Planned group size                   | Approx. 35 students  |
| Language                             | German   |
| Module Duration                      | 1 semester   |
| Module Coordinator                   | Schätter, Frank  |
| Lecturer(s)                          | Schätter, Frank; Berbig, Dominik; Haas, Florian  |
| Subject area / course of study       | Purchasing and logistics   |
| Applicability in other programs      | None   |
| Pedagogical Approach                 | Seminar teaching   |
| Objectives                           | The students <ul style="list-style-type: none"> <li>know and understand how concept developments for the integration of the company into international production and supply networks are developed and implemented in terms of process technology, information technology and legal aspects.</li> </ul>   |

|                           |  |
|---------------------------|--|
|                           | <ul style="list-style-type: none"> <li>• have in-depth knowledge of the strategies, methods, management tools and other instruments of supply chain management and are able to apply the methods.</li> <li>• are able to leverage potentials in the supply chain by using a standard process model and to close gaps.</li> </ul> <p>In addition to deepening knowledge, the module primarily serves the acquisition of instrumental, systemic competence and communicative competence.</p>   |
| Content                   | <ul style="list-style-type: none"> <li>• Management tools for use in supply chain management</li> <li>• Methods for designing, planning, implementing, and optimizing process flows in the value chain</li> <li>• Supply Chain Operations Reference Model (SCOR)</li> <li>• Selected topics from supply chain management</li> <li>• Application of a process model in supply chain management</li> </ul>   |
| Relation to other Modules | The module builds on the modules in the pre-semester major.  |
| Literature                | <ul style="list-style-type: none"> <li>• Arnolds, H., et al.: Materialwirtschaft und Einkauf. Springer Gabler, Wiesbaden.</li> <li>• Becker, T.: Prozesse in Produktion und Supply Cain optimieren (eBook). Springer Vieweg, Berlin.</li> <li>• Bolstorff, P.A., et al.: Spitzenleistungen im Supply Chain Management – ein Praxishandbuch zur Optimierung mit SCOR (eBook). Springer, Berlin.</li> <li>• Heß, G.: Strategischer Einkauf und Supply Chain Strategie. Springer, Wiesbaden.</li> <li>• Kluck,D.: Materialwirtschaft und Logistik – Lehrbuch mit Beispielen und Kontrollfragen. Schaeffer-Poeschl, Stuttgart.</li> <li>• Kummer, S., et al.: Grundzüge der Beschaffung, Produktion und Logistik. Pearson, München.</li> <li>• Liebetruth, T.: Prozessmanagement in Einkauf und Logistik: Instrumente und Methoden für das Supply Chain Process Management. Springer Gabler, Wiesbaden</li> <li>• Oeldorf, G.; Olfert, K.: Material-Logistik. Kiehl, Herne.</li> <li>• Simchi-Levi, D., et al.: Designing and Managing the Supply Chain – Concepts, Strategies and Case Studies. McGraw-Hill International Edition, New York.</li> <li>• Van Weele, A.; Eßig, M.: Strategische Beschaffung. Springer, Wiesbaden.</li> <li>• Werner, H.: Supply Chain Management – Grundlagen, Strategien, Instrumente und Controlling (eBook). Springer Gabler, Wiesbaden.</li> </ul> <p>Latest edition in each case</p> |
| Workload                  | In addition to the 4 SWS x 15 = 60 h attendance time, the students are expected to spend another 180 h on the presentation topics as well as the development of a glossary and the practical application of the process model with subsequent presentation of the results. This results in a total workload of 240 hours.  |
| Additional Remarks        | Supply chain management, global value chains, international production and supply networks, SCOR   |
| Last edited               | June 2021  |

