

**Syllabus**  
**BIS3012 Transactional Processing Systems in Logistics (SAPL)**  
 Prof. Dr. Joachim Schuler, Prof. Dr.-Ing. Dominik Berbig  
 Summer Semester 2024

|                              |  |  |                    |
|------------------------------|--|--|--------------------|
| <b>Level</b>                 | Bachelor   |  |                    |
| <b>Credits</b>               | 3  |  |                    |
| <b>Student Contact Hours</b> | 2  |  |                    |
| <b>Workload</b>              | 90 hours, 30 hours within class and 60 hours for self-study and preparation presentation               |  |                    |
| <b>Prerequisites</b>         | BIS2041 or SAP Intro. Proof of English language skills. Successfully completed first stage of studies. |  |                    |
| <b>Time</b>                  | See schedule   |  |                    |
| <b>Room</b>                  | W1.5.03 (et al.)   |  |                    |
| <b>Start Date</b>            | See schedule   |  |                    |
| <b>Lecturers</b>             | <b>Name</b>  | Prof. Dr. Joachim Schuler / Prof. Dr.-Ing. Dominik Berbig  |                    |
|                              | <b>Office</b>  | W2.2.04  | / W2.3.23          |
|                              | <b>Virtual Office</b>  | Microsoft Teams  |                    |
|                              | <b>Office Hours</b>  | <a href="https://www.hs-pforzheim.de/profile/joachimschuler">https://www.hs-pforzheim.de/profile/joachimschuler</a><br><a href="https://www.hs-pforzheim.de/profile/dominikberbig">https://www.hs-pforzheim.de/profile/dominikberbig</a> |                    |
|                              | <b>Phone</b>   | 07231 / 28 64 22   | / 07231 / 28 60 54 |
|                              | <b>Email</b>   | <a href="mailto:joachim.schuler@hs-pforzheim.de">joachim.schuler@hs-pforzheim.de</a><br><a href="mailto:dominik.berbig@hs-pforzheim.de">dominik.berbig@hs-pforzheim.de</a>   |                    |

## **Summary**

This course provides a deeper insight on business functions, processes and data requirements and emphasis on production planning and control using SAP ERP.

## **Outline of the Course**

- Introduction to Production Planning (PP) core concepts and GBI
- Organizational structures and master data for PP in SAP ERP
- Case study PP
- Project work (individual & in groups) with Q&A
- Final presentation of project results
- Guest expert lecture (mandatory)

## Course Intended Learning Outcomes and their Contribution to Program Intended Learning Outcomes / Program Goals

| Program Intended Learning Outcomes   | Course Intended Learning Outcomes  | Assessment Method                 | Assessment Method                 |
|--|--|-----------------------------------|-----------------------------------|
| After completion of the program the students will be able...   | After completion of the course the students will be able...  | Project Work<br>50%<br>Individual | Project Work<br>50%<br>Collective |
| <b>1 Expert Knowledge</b>  |  |                                   |                                   |
| 1.5 ...to demonstrate profound expert knowledge in their field of specialization.  | ...to judge what is required to set-up a straight-forward production process in SAP S/4HANA and have an according general understanding. | X                                 | X                                 |
| <b>2 Digital Skills</b>  |  |                                   |                                   |
| 2.1 ...to know and understand relevant IT software tools used in business and their features and have a solid understanding of digital technologies. | ...to use SAP S/4HANA as ERP system for real-life production processes and have an according understanding.                              | X                                 | X                                 |
| 2.3 ...to effectively use digital technologies to interact, to collaborate and to communicate.   | ...to cooperate remotely and commonly solve a case study by using communication platforms.   | (X)                               | X                                 |
| <b>3 Critical Thinking and Analytical Competence</b>   |  |                                   |                                   |
| 3.1 ...to implement adequate methods in a competent manner and to apply them to complex problems.  | ...to critically analyse processes in production and supply chains.  | X                                 | X                                 |
| 3.2 ...to critically reflect and interpret findings and to develop comprehensive solutions for complex problems.                                     | ...to reflect on KPIs and how to optimize production planning processes.   | X                                 | X                                 |
| <b>4 Ethical Awareness</b>   |  |                                   |                                   |
| <b>5 Communication and Collaboration Skills</b>  |  |                                   |                                   |
| 5.2 ...to demonstrate their oral communication skills in presentations.  | ...to condense their knowledge in an appropriate manner to present their project results in an easily understandable way in the system.  | X                                 | X                                 |
| 5.3 ...to work successfully in a team by performing practical tasks.   | ...to cooperate in (virtual) teams to solve a common task during the case-study phase.   |                                   | X                                 |
| <b>6 Internationalization</b>  |  |                                   |                                   |
| 6.2 ...to articulate themselves in a professional manner in international business.  | ...to explain their findings in English using correct terminology.   | (X)                               | X                                 |

## Teaching and Learning Approach

This course follows a holistic approach to teaching and learning. During the lectures, the content will be presented supported by in-class discussions. The project aims to develop and present an integrative process live on S/4HANA.

This course consists of several components that are closely interlinked. In terms of content, the course deals with business processes from the perspective of "business" (logistics) and the IT-technical implementation with the S/4HANA-system. The integrative teaching of the different aspects and views takes place through a co-teaching approach by the lecturers.

The contents taught in the lecture are applied and further deepened in the work with the system. The lecture notes are not presented slide by slide in the lectures, but the topics indicated in the schedule are dealt with in a focussed manner.

The individual assignment includes conducting the case studies and creating your own data.

The group task is to work on the mapping of a purchasing and sales process with own master data on S/4HANA as a teamwork of approx. 4-5 students. The aim of the work (teamwork) is to be able to handle S/4HANA independently and to master the business processes "purchasing", "production" and "sales".

Q&A sessions are offered for both parts. The preparation of these appointments also goes into the evaluation.

Every team member shall actively participate to ensure the intended learning success.

The result of the group work is a presentation. During the presentation (20 minutes), the processes worked on are to be shown live on the S/4HANA. The target audience for the presentation is the fellow students. The presentation also includes a PowerPoint file in which the central results are presented in an interesting way to illustrate them. Besides, a comprehensive documentation is required.

## Literature and Course Materials

The lecture is based on the teaching material of the SAP University Alliance (UA) (model company GBI, SAP Navigation as well as slides, exercise and case study on MM and SD). The GBI-MM and SD case study are based on the documents issued and the SAP Help Portal of SAP AG (<http://help.sap.com>). The SAP Library also contains definitions of SAP terms (glossary). You can also use the SAP glossary in the SAP system using the "SAPTERM" transaction.

### Literature (additional):

Akhtar, J. (2013): Production planning and control with SAP ERP, 1. ed., Galileo Press

Dickersbach, J. T.; Keller, G. (2014); Produktionsplanung und -steuerung mit SAP ERP, 4. aktual. Auflage, Galileo Press

Sarferaz, S. (2023): ERP-Software: Funktionalität und Konzepte, 1. Auflage, Springer Vieweg, Wiesbaden

Goel, H. (2022): Handbook for SAP PP in S/4HANA (Production Planning and Execution in SAP S/4HANA), 1. Auflage, Apress Berkeley, CA

Berbig, D.; Schuler, J. (2022): Einsatz von S/4HANA in den Studiengängen Einkauf und Logistik sowie Wirtschaftsinformatik – Ein Erfahrungsbericht. Proceedings of the SAP Academic Community Conference 2022 DACH

Lecture slides, case material, and any additional resources will be provided through the e-learning platform

### Assessment

The grade is based on two parts, an individual one plus a group work. Both are done within S/4HANA (details see above). A fast track possibility is offered.

All students will work on individual and group projects and present their results. The assessment will be made on the project results, the presentations and the documentations. The documents have to be submitted (as advised) before the due time. Team work is to be shared equally among members of the group.

Presentations and documentation will be included in the evaluation as follows:

|                 |                                   |                       |
|-----------------|-----------------------------------|-----------------------|
| Individual work | Data sheet PP                     | Max. 25 points        |
|                 | Preparation of Own Data incl. Q&A |                       |
|                 | Documentation of Own Data         |                       |
| Group work      | Presentation SAP                  | Max. 25 points        |
|                 | Preparation of SAP incl. Q&A      |                       |
|                 | Documentation SAP                 |                       |
| <b>Total</b>    |                                   | <b>Max. 50 points</b> |

Both parts have to be passed within one and the same semester. In justified cases, it is also possible to deviate from joint grading in the case of group performances.

Generally, the respective authorship must be indicated for all documents to be submitted (group and individual performances) (e.g. in the case of presentations by naming the creator of this slide in the respective footer). There may also be peer review within groups as needed.

Please note that your registration is binding after the end of the registration period. This is necessary because the full participation of all registered students is very important for the quality of the courses. Therefore, no registrations or withdrawals from the course are possible after the registration phase. Deregistration after the end of the registration phase will be considered as "failed".

Attendance is compulsory for all presentation dates. An unexcused absence or delayed feedback of work results will lead to a lowered grade, two or more unexcused absences or delayed feedbacks of work results will be counted as a fail.

## Schedule (tentative & subject to change – according information during lecture only)

| Date               | Time                               | Topic                                   |
|--------------------|------------------------------------|---|
| 20 March 2024      | 15:30 - 18:45                      | Intro & PP-task                         |
| 03 April 2024      | 15:30 - 18:45                      | Case study PP - Own Data                |
| 17 April 2024      | 15:30 - 18:45                      | Q&A 1 - Own Data & Group Work (W3.2.04) |
| <b>01 May 2024</b> | <b>HOLIDAY</b>                     |   |
| <b>08 May 2024</b> | 15:30 - 18:45                      | Q&A 2 - Group Work                      |
| <b>15 May 2024</b> | <b>FIELD TRIP / EXCURSION WEEK</b> |   |
| <b>22 May 2024</b> | <b>PENTECOSTE HOLIDAY</b>          |   |
| 29 May 2024        | 15:30 - 18:45                      | Q&A 3 - Group Work                      |
| 05 June 2024       | 15:30 - 18:45                      | SAPL - Final presentation               |
| 26 June 2024       | 15:30 - 18:45                      | Guest Speech (mandatory)                |

## Code of Conduct for online Teaching

[Link to the Code of Conduct for online Teaching](#)

## Additional Information

Communication:

In support of this course, an online communication platform will be used which offers several advantages: Firstly, teaching material will be made available via this platform. Secondly, questions that might arise can be discussed among the students through the use of this platform. Finally, general questions can be answered transparently by the lecturer, i.e. all students will be able to see the answers. Only for specific personal questions, you may always contact the lecturer in person or via email.

Organization of the student team work:

- The instructions for the presentation are given during class. The presentation needs to be prepared in groups.
- Students must attend all presentations and discussions of the team work as well as the optional WM workshop.
- More details regarding organisation will be announced during class.