

## IT-Systems in Production Management

<b>Module code:</b>	<b>Workload:</b>	<b>Semester:</b>
MERP	150 h	(WiSe) Sem.
<b>Credits:</b>	<b>Duration:</b>	<b>Frequency:</b>
5	1 Sem.	each winter term
<b>Independent study:</b>	<b>Class size:</b>	<b>Contact hours:</b>
90 h	20	4 SWS / 60 h
<b>Module-No.:</b>	<b>Exam.-No.:</b>	<b>Percentage of final score:</b>
7917	5190	PEM: 4,39
<b>Language of instruction:</b>	<b>Vers. BPO/MPO min.:</b>	<b>Internal: Code/Status</b>
english	MPO-2017	631 / aktiv

### Type of course:

Seminaristic lecture: 2 hours per week / 30 h Practical part: 2 hours per week / 30 h

### Learning outcomes/Competencies:

- Students learn fundamentals of enterprise resource planning (ERP) and the importance of integrated information systems
- Students earn basic knowledge of working with ERP systems
- Students understand different process modeling methods
- Students are able to implement operations using ERP systems (e.g. customizing)
- Students are able to compare and appraise different ERP systems
- Students know about ERP introduction strategies and modifications

### Content/subject aim:

1. Introduction to ERP-Systems
2. Data Management
3. Production Management: MRP, MRP2, ERP, APS

4. ERP and Business Process Implementation

5. Technical Information Systems: CIM, EDM

6. SCM - Supply Chain Management

7. CRM - Customer Relationship Management

8. Lifecycle Management

9. Selection of ERP Systems

The students have to draw up a composition related to IT-Systems in Production Management. Contents are:

- Historical development and definition of the terms used
- Application areas and the advantages or benefits
- Concrete example
- Future development

**Teaching methods:**

Seminaristic lecture; composition with presentation

**Prerequisites for participation:**

Knowledge of production planning and control and computer sciences

**Assessment methods / First Examiner / Second Examiner:**

Elaboration / Prof. Hartweg / Prof. Deuter

**Requirements to get the credit points:**

Composition with Colloquium

**This module is used in the following degree program: (in semester-no.)**

(WiSe) M.Sc. Production Engineering and Management (WP)

**Weight of grade for final grade:**

5/114: M.Sc. Production Engineering and Management

**Responsibility for module / Teacher of the submodule:**

Prof. Dr.-Ing. Dipl.-Wirt. Ing. Elmar Hartweg

**Other information / literature:**

- Gulyassy, F.; et al.: Materials Planning with SAP. SAP Press 2009

- Ivanov, D.; et al.: Global Supply Chain and Operations Management. Springer 2017.
- Kurbel, K.; et al.: Enterprise Resource Planning and SCM. Springer 2013.
- Muir, N.; et al.: Discover SAP. SAP Press 2010
- Kenaroglu, B.: ERP Systems Selection Process: A Roadmap for ERP Systems Selection. VDM, Saarbrücken 2009.
- Pearlson, K.; Saunders, C.: Managing and Using Information Systems: A Strategic Approach (Wiley Series in Probability and Statistics). John Wiley & Sons, Hoboken 2009.