## IT-Systems in Production Management

<table>
<thead>
<tr>
<th>Module code:</th>
<th>Workload:</th>
<th>Semester:</th>
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<tbody>
<tr>
<td>MERP</td>
<td>150 h</td>
<td>(WiSe) Sem.</td>
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<tr>
<th>Credits:</th>
<th>Duration:</th>
<th>Frequency:</th>
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<tbody>
<tr>
<td>5</td>
<td>1 Sem.</td>
<td>each winter term</td>
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<tr>
<th>Independent study:</th>
<th>Class size:</th>
<th>Contact hours:</th>
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<tbody>
<tr>
<td>90 h</td>
<td>20</td>
<td>4 SWS / 60 h</td>
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<tr>
<th>Module-No.:</th>
<th>Exam.-No.:</th>
<th>Percentage of final score:</th>
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<tbody>
<tr>
<td>7917</td>
<td>5190</td>
<td>PEM: 4,39</td>
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<tr>
<th>Language of instruction:</th>
<th>Vers. BPO/MPO min.:</th>
<th>Internal: Code/Status</th>
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<tr>
<td>english</td>
<td>MPO-2017</td>
<td>631 / aktiv</td>
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### 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 Examinator / Second Examinator:**  
Composition with Presentation / 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
• Muir, N.; et al.: Discover SAP. SAP Press 2010