Course
BAE2112 – Production Engineering and Manufacturing (Produktion 2)
2 hours per week, 2 credits, English level: upper

Instructors
Prof. Dr. Peter Saile
Office: T1.5.26 office hours: see LSF
Colloquium Munday 13:45-15:15
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Overview
The course deals with the most important issues of industrial production, focusing on
technical subjects and shopfloor related issues. It gives deeper insight in relevant production
topics like assembly, workpiece handling, maintenance and quality control.

Prerequisites:
Fertigungstechnik 1 and 2, Konstruktionslehre, Advanced English for Engineers,
Elektrotechnik

Learning Objectives
By the end of the course students
- Will understand automated industrial production processes
- Will have an overview over the components of automation
- Will know the specific challenges of an equipment planning process
- Will know characteristic designs and components of machines and production lines

Course Topics
- Introduction
- Product structure
- Manufacturing processes
- Process parameters and their determination
- Assembly systems
- Workpiece carriers
- Transfer systems
- Handling devices
- End-effectors
- Sensors
- Feeding systems
- Buffers
- Total Productive Maintenance TPM
- Conveyor systems

Teaching and learning approach
The course will be run as a “classical” lecture plus some demonstrations and video clips.
**Contribution to program goals**

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<th>Goals</th>
<th>Contribution</th>
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<tr>
<td>Engineering Knowledge</td>
<td>Introduction to the industrial and automated production as well as its machines and methods</td>
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**Course Material**

- Script Production 2; Prof. Dr. Peter Saile
- Konold, Peter, Reger, Herbert, Praxis der Montagetechnik, 2013 - ISBN 3663016102, 9783663016106

**Final Examination**

There will be a 60 min written final exam for this course (together with “Produktion I”) at the end of the semester.

**Grading**

Students will be graded on a scale of 1 = excellent, 2 = very good, 3 = satisfactory, 4 = pass and 5 = fail.

**My Teaching Philosophy**

I want to contribute to your learning progress in terms of technical understanding and engineering abilities. I will try to show you the practical importance of the issues of this course. Questions – during the course or during my “Colloquium” – are very welcome and will be answered either in the course or individually.