



Technical Systems	
Course number	6042
Hours per week:	4
ECTS:	5
Scheduled:	Summer Term
Format:	seminar
Examination:	Written exam (90 min)
Lecturer:	Prof. Dr.-Ing. Schneider-Störmann
Objectives:	<p>The course provides the skills to understand technical systems from the perspective of technical and sales department to understand the role and function of system parts.</p> <p>Learns will be a systematic approach to technical systems using system-theoretical methods in sub-functions and sub-components to modularize the systems.</p>
Contents:	<ul style="list-style-type: none">• Fundamentals of selected technical systems: these will be systematically disassembled into individual components, groups and sub-functions• Signals and signal processing• Systems theory, cybernetics, metrology, sensors and mechatronic systems• In addition to technical systems, new technologies and their application discussed• Examples of outstanding innovations and their commercial application will be given
Pre-requisites	Engineering Basics I-III, Mathematics I-II
Recommended Reading:	<p>Frey, T.: Signal- und Systemtheorie, Vieweg+Teubner Verlag Orlowski, P.: Praktische Regeltechnik, Springer-Verlag Ohm, J.-R., Lüke, H.-D.: Grundlagen der digitalen und analogen Nachrichtenübertragungssysteme, Springer-Verlag Günter Ropohl, Allgemeine Technologie, Eine Systemtheorie der Technik, Universitätsverlag Karlsruhe</p> <p>all books in current edition</p>