

<b>Department</b>	09 Engineering and Management
<b>Course title</b>	<b>Machine Components 2</b>
<b>Hours per week (SWS)</b>	2
<b>Number of ECTS credits</b>	3
<b>Course objective</b>	By the end of the course students will: <ul style="list-style-type: none"><li>• Know advantages and disadvantages of different assembly components.</li><li>• Know the structural boundary conditions of the different assembly.</li><li>• Are capable to recognise the basic mechanical mode of operation from technical drawings und can derive the mechanical model.</li><li>• Are capable to calculate and design different machine components by means of simple formulae.</li></ul>
<b>Prerequisites</b>	Basis knowledge and fundamentals in mathematics and physics
<b>Recommended reading</b>	<ul style="list-style-type: none"><li>• Lecture notes (script)</li></ul>
<b>Teaching methods</b>	
<b>Assessment methods</b>	Written Exam
<b>Language of instruction</b>	English
<b>Name of lecturer</b>	Prof. Dr.-Ing. Eckhard Hoffmann
<b>Email</b>	<a href="mailto:eckhard.hoffmann@hm.edu">eckhard.hoffmann@hm.edu</a>
<b>Link</b>	
<b>Course content</b>	<ul style="list-style-type: none"><li>• Features of simple and detachable elements such as springs.</li><li>• Features of complex elementary components such as bearings (ball-bearings, roller-bearings,etc.), gears (spur-, bevel-gears, etc.), gearboxes, couplings, brakes, etc.</li><li>• Methods of calculation for the different simple and complex elementary components.</li><li>• Methods of calculation for secure incorporation of those components, such as vibration, Hertz-pressure, etc.</li></ul>
<b>Remarks</b>	Presence time for lectures and exercises: 30 hours Self-studies preparation of lectures and exam: 90 hours