

	<b>HTWK Leipzig, Leipzig University of Applied Sciences</b>			
	Module Course code	<b>Cooperative Design Project cDP</b>		
	Semester	<b>Summer semester</b>		
	ECTS, level	<b>5 points, Bachelor's (undergraduate)</b>		
	Language of instruction	<b>English</b>		
	Teaching staff	<b>Prof. Dr.-Ing. Johannes Zentner</b>		
Prerequisites	Basics of mechanical engineering, 3D-CAD			
Learning outcomes	<p>Knowledge in</p> <ul style="list-style-type: none"> <li>- management of developing projects in mechanical engineering</li> <li>- design methodology in mechanical engineering</li> <li>- cooperative techniques</li> </ul> <p>Capabilities in</p> <ul style="list-style-type: none"> <li>- design of products</li> <li>- using of project management methods</li> <li>- using of design methods</li> </ul>			
Course contents	<p>Basics of management of developing projects in mechanical engineering</p> <ul style="list-style-type: none"> <li>- specification</li> <li>- planning</li> <li>- scheduling</li> <li>- control</li> </ul> <p>Basics of design methodology in mechanical engineering</p> <ul style="list-style-type: none"> <li>- problem specification</li> <li>- generation of conceptual solutions for the problem</li> <li>- evaluation and selection of favourite solution</li> <li>- generation of CAD model</li> </ul>			
Workload	150 hours, of which 56 hours attendance (14 weeks x 4 hours)			
Pre-examination requirements	None			
Mode of instruction and assessment	<b>Lecture</b>	<b>Seminar</b>	<b>Laboratory Course</b>	<b>Assessment</b>
	1 hour per week	1 hour per week	2 hour per week	Cooperative homework
Recommended reading	<p>TOOLEY, M.: <i>Design Engineering Manual</i>, Elsevier, Amsterdam et al., 2010</p> <p>PAHL, G.; BEITZ, W. FELDHUSEN, J.; GROTE, K.-H.: <i>Design Engineering, A Systematic Approach</i>. 3rd Edition, Springer, Berlin et al., 2007</p> <p>ULLMAN, DAVID G.: <i>The Mechanical Design Process</i>. 5th Edition. McGraw-Hill, New York, 2015</p> <p>CROSS, NIGEL: <i>Engineering Design Methods. Strategies for Product Design</i>. Wiley, 2008</p> <p>SCHMIDT, TERRY: <i>Strategic Project Management. Practical Tools for Leaders and Teams</i>. Wiley, 2009</p> <p>Software Microsoft Project</p> <p>Electronic handbooks and scripts</p>			