

<b>Module description: Bachelor Thesis: Transportation Systems</b>			
<b>Module Code</b>	t.BA.MO.BA.24HS		
<b>ECTS Credits</b>	12		
<b>Language of Instruction/Examination</b>	German		
<b>Organizational Unit</b>	MPS Ltg.		
<b>Module Coordinator</b>	Thomas Sauter-Servaes		
<b>Legal Framework</b>	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.		
<b>Module Characteristic</b>	Type 7  Bachelor's thesis		
<b>Module Description</b>	In the Bachelor's thesis, students work independently on topics from the field of mobility & logistics in close cooperation with business partners from the transport industry (companies, associations, administration) and the supervising lecturers.		
<b>Module Content</b>	<ul style="list-style-type: none"> <li>• The bachelor thesis consists of the independent work on a comprehensive practice-oriented technical-scientific problem. The problem can originate from research &amp; development of an institute or directly from practice partners from the transport industry.</li> <li>• The steps that students practice by working on the problem include an analysis of the problem and the structuring and planning of the workflow with a time schedule. Depending on the problem, field investigations and/or modeling and simulation may be required. The results lead to the solution of the problem. The students are able to critically examine the results and are able to assess whether the set goals are achieved or the requirements from the task are fulfilled.</li> <li>• During the bachelor thesis, the students regularly report on its progress and discuss the further process. In a report, project implementation and results are documented. The summary is to be written in German and English. The results are presented in the presence of an external expert.</li> </ul>		
<b>Prerequisite Knowledge</b>			
<b>Learning Objectives (Competences)</b>	<b>Students...</b>	<b>Competencies</b>	<b>Taxonomies</b>
	Students have the ability to independently acquire methodological and subject-specific scientific knowledge from literature and professional publications.	M, F	K4
	Students will be able to critically review the results and evaluate whether the objectives have been met.	M, F	K6
	Students are able to apply the knowledge and skills acquired in their studies to practical problem solving and develop new solutions to the problem in combination with their findings from the literature review.	M, SE, F, SO	K5
	Students can independently determine the task and plan the workflow.	M, F	K2
	Students will have the ability to document findings in a report and present them orally.	M, SO, SE	K5
	Generally, students work in a team of two and communicate with the client and the supervising instructor.	SO, SE	K4
	Students demonstrate engineering thinking and action through a real-world problem definition posed and worked on in close collaboration with industry.	F, SO, M, SE	K6

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<b>Performance Assessment</b>	<b>End-of-module exam</b>	<b>Assessment</b>	<b>Length (min.)</b>	<b>Weighting</b>	<b>Form</b>	
	report	Grade		100	acc. to module agreement	
	<b>Performance assessment during the semester</b>			<b>Assessment</b>	<b>Length (min.)</b>	<b>Weighting</b>
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<b>Classroom Attendance Requirement</b>	None					
<b>Learning material</b>						
<b>Comments</b>						