

<b>Module description: Project Thesis: Energy and Environmental Engineering</b>	
<b>Module Code</b>	t.BA.EU.PA.19HS
<b>ECTS Credits</b>	6
<b>Language of Instruction/Examination</b>	German
<b>Organizational Unit</b>	MEA Ltg.
<b>Module Coordinator</b>	Franz Baumgartner
<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 6 Project work
<b>Module Description</b>	In their project thesis, students perform their individual analyses of a topic centred on the study specialisation they have chosen for their energy and environmental technology studies, working in close collaboration with partners from industry and the supervising lecturer.
<b>Module Content</b>	<ul style="list-style-type: none"> <li>• The project thesis consists of the independent processing of an extensive, practice-oriented technical-scientific task to be solved. The task is centred at a research or development topic of an institute or in industry.</li> <li>• The work steps that the students work on include analysing the problem and structuring and planning the workflow with a schedule. Depending on the problem, experimental investigations and / or modelling and simulation are required. The students can check the results critically and are able to assess whether the set goals are achieved, or the requirements of the task are met. The results lead to the solution of the task.</li> <li>• During the project thesis, the students regularly report their progress and discuss the further course, whereby the lecturers or partners from industry can also add new sub-goals and dates in justified cases. Project implementation and results are documented in a technical report. The summary must be written in German and English.</li> </ul>
<b>Prerequisite Knowledge</b>	<a href="https://gpmpublic.zhaw.ch/GPMDocProdDPublic/2_Studium/2_02_Grundlagen_Studium/T_C_L_Modulauspraegungen_SM2025.pdf">https://gpmpublic.zhaw.ch/GPMDocProdDPublic/2_Studium/2_02_Grundlagen_Studium/T_C_L_Modulauspraegungen_SM2025.pdf</a>

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<b>Learning Objectives (Competences)</b>	<b>Students...</b>		<b>Competencies</b>	<b>Taxonomies</b>	
	The students can understand the task independently and plan the workflow		F, M	K2	
	The students generally work together in a team of two and communicate with the client and the supervising lecturer		SO, SE	K4	
	The students can incorporate the knowledge and skills acquired during their studies into practical problem solving and develop new solutions in connection with their new findings from literature research		SO, F, M, SE	K5	
	The students are able to critically review, evaluate and develop the interim results in order to achieve the objectives of the task		F, M	K6	
	The students have the ability to document the results in a technical report and to present them orally		SO, SE, M	K5	
	The students gain competence to independently acquire technical and scientific knowledge and research findings from literature and specialist publications		F, M	K4	
	The students practice engineering thinking and acting on a practical problem from the area of their chosen focus in the energy and environmental technology course, which is posed and worked on in close cooperation with industry if possible		F, SE, SO, M	K6	
<b>Performance Assessment</b>	<b>End-of-module exam</b>	<b>Assessment</b>	<b>Length (min.)</b>	<b>Weighting</b>	<b>Form</b>
	other	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>					