

**Module: Seminar I - Current Topics in Research**

<b>Level</b>	Master	<b>Short Name</b>	Sem I
<b>Responsible Lecturers</b>	Sandra Achilles/all lecturers from THL		
<b>Department, Facility</b>	Mechanical Engineering and Business Administration		
<b>Course of Studies</b>	Mechanical Engineering, Master		
<b>Compulsory/elective</b>	Compulsory	<b>ECTS Credit Points</b>	5
<b>Semester of Studies</b>	2	<b>Semester Hours per Week</b>	2
<b>Length (semesters)</b>	1	<b>Workload (hours)</b>	150
<b>Frequency</b>	SuSe and WiSe	<b>Presence Hours</b>	30
<b>Teaching Language</b>	English	<b>Self-Study Hours</b>	120

The following section is filled only if there is **exactly one** module-concluding exam.

<b>Exam Type</b>	Project Work	<b>Exam Language</b>	English
<b>Exam Length (minutes)</b>		<b>Exam Grading System</b>	One-third Grades
<b>Learning Outcomes</b>	<ul style="list-style-type: none"> <li>• The students will gain experience in acquainting themselves with complex R&amp;D topics.</li> <li>• The students will gain an overview of current research topics with special emphasis on the research fields.</li> <li>• The students will train scientific writing.</li> <li>• The students will get practical training in scientific presentations and improvement of their presentation skills.</li> </ul>		
<b>Participation Prerequisites</b>	second or higher semester		

The previous section is filled only if there is **exactly one** module-concluding exam.

<b>Consideration of Gender and Diversity Issues</b>	<ul style="list-style-type: none"> <li>✓ Use of gender-neutral language (THL standard)</li> <li>✓ Target group specific adjustment of didactic methods</li> <li>✓ Making subject diversity visible (female researchers, cultures etc.)</li> </ul>
<b>Applicability</b>	Seminar II
<b>Remarks</b>	<p>This seminar will prepare the students for scientific work of the master thesis and scientific work after graduating. An overview of the current R&amp;D trends in mechanical and materials engineering will be given. Detailed information about current R&amp;D projects at the universities participating in this program will be presented and subjects of master theses discussed on scientific level. The underlying scientific information and the project plan have to be presented and defended in the seminar. Presentation methods and organising technical reports will be trained simultaneously.</p> <p>Professional key competences achieved are competence in methods, self-competence/personal competence and intercultural competence.</p>

## Module Course: Seminar I - Current Topics in Research

(of Module: Seminar I - Current Topics in Research)

<b>Course Type</b>	Seminar	<b>Form of Learning</b>	Presence
<b>Mandatory Attendance</b>	yes	<b>ECTS Credit Points</b>	5
<b>Participation Limit</b>		<b>Semester Hours per Week</b>	2
<b>Group Size</b>	4	<b>Workload (hours)</b>	150
<b>Teaching Language</b>	English	<b>Presence Hours</b>	30
<b>Study Achievements ("Studienleistung", SL)</b>		<b>Self-Study Hours</b>	120
<b>SL Length (minutes)</b>		<b>SL Grading System</b>	

The following section is filled only if there is a course-specific exam.

<b>Exam Type</b>		<b>Exam Language</b>	
<b>Exam Length (minutes)</b>		<b>Exam Grading System</b>	
<b>Learning Outcomes</b>			
<b>Participation Prerequisites</b>			

The previous section is filled only if there is a course-specific exam.

<b>Contents</b>	<p><i>Current topics in R&amp;D</i></p> <ul style="list-style-type: none"> <li>• Overview worldwide (mechanical engineering, materials science and engineering, design and systems engineering)</li> <li>• R&amp;D at participating universities</li> </ul> <p><i>Reporting and presentations</i></p> <ul style="list-style-type: none"> <li>• different types of reports</li> <li>• writing of scientific papers and reports</li> <li>• different types of presentations</li> <li>• presentation techniques</li> <li>• exercises</li> </ul> <p><i>Presentations by students</i></p> <ul style="list-style-type: none"> <li>• introduction into a certain research field and the research topic addressed</li> <li>• first project plan of scientific project and paper</li> </ul>
<b>Literature</b>	Literature will be addressed during coursework.
<b>Remarks</b>	<p><i>Requirements for granting of credits</i></p> <ul style="list-style-type: none"> <li>• successful passing of exercises</li> <li>• successful writing of a report</li> <li>• successful oral presentations</li> </ul>