

**Module: Modern Topics in Mechanical Engineering**

<b>Level</b>	Bachelor	<b>Short Name</b>	MTME
<b>Responsible Lecturers</b>	Kral, Roland, Prof. Dr.-Ing.		
<b>Department, Facility</b>	Mechanical Engineering and Business Administration		
<b>Course of Studies</b>	Mechanical Engineering, Bachelor		
<b>Compulsory/elective</b>	Elective	<b>ECTS Credit Points</b>	5
<b>Semester of Studies</b>	(Unspecified)	<b>Semester Hours per Week</b>	4
<b>Length (semesters)</b>	1	<b>Workload (hours)</b>	150
<b>Frequency</b>	(Flexible)	<b>Presence Hours</b>	60
<b>Teaching Language</b>	English	<b>Self-Study Hours</b>	90

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

<b>Exam Type</b>	Written Exam	<b>Exam Language</b>	English
<b>Exam Length (minutes)</b>	120	<b>Exam Grading System</b>	One-third Grades
<b>Learning Outcomes</b>	The main target of this course is teaching current topics in research, the professional field in industry or other matters of concern in mechanical engineering and/or related subjects.		
<b>Participation Prerequisites</b>	Recommended are knowledge from the first two years of studies in Mechanical Engineering.		

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>	Senior Design Project (4th year at MSOE)
<b>Remarks</b>	<p>Being up to date at any time is very important in a fast growing and improving world of technologies.</p> <p>The course wants to inform about modern topics in engineering on teaching level.</p>

## Module Course: Modern Topics in Mechanical Engineering (Lecture)

(of Module: Modern Topics in Mechanical Engineering)

<b>Course Type</b>	Lecture	<b>Form of Learning</b>	Presence
<b>Mandatory Attendance</b>	no	<b>ECTS Credit Points</b>	5
<b>Participation Limit</b>		<b>Semester Hours per Week</b>	4
<b>Group Size</b>		<b>Workload (hours)</b>	150
<b>Teaching Language</b>	English	<b>Presence Hours</b>	60
<b>Study Achievements ("Studienleistung", SL)</b>		<b>Self-Study Hours</b>	90
<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><b>The topic is depending on the actual trends and needs</b></p> <ul style="list-style-type: none"> <li>• Introduction into the subject</li> <li>• Describing the problem</li> <li>• State of the art</li> <li>• Picking out the problem</li> <li>• Main topic</li> <li>• Discussion</li> <li>• Summary</li> <li>• Case studies</li> </ul>
<b>Literature</b>	<ul style="list-style-type: none"> <li>• Will be distributed in the class, depending on the topic/subject</li> <li>• No explicit course book required Additional literature according to the list given out in class</li> </ul>
<b>Remarks</b>	The course is intended for the 5th or 6th semester.