

### Grading criteria: Mechanical Engineering

Grade	Criteria
<b>A</b>	<p><b>Level:</b> The student demonstrates outstanding results considering the requirements of the course learning objectives regarding problem-solving skills, concept comprehension, application skills, communication skills and ability of judgment.</p> <p><b>Range:</b> Fulfills all of the course learning objectives very well.</p>
<b>B</b>	<p><b>Level:</b> The student demonstrates very good results considering the requirements of the course learning objectives regarding problem-solving skills, concept comprehension, application skills, communication skills and ability of judgment.</p> <p><b>Range:</b> Fulfills the course learning objectives, most of which very well.</p>
<b>C</b>	<p><b>Level:</b> The student demonstrates good results considering the requirements of the course learning objectives regarding problem-solving skills, concept comprehension, application skills, communication skills and ability of judgment.</p> <p><b>Range:</b> Fulfills all of the course learning objectives, several of which very well.</p>
<b>D</b>	<p><b>Level:</b> The student demonstrates satisfactory results considering the requirements of the course learning objectives regarding problem-solving skills, concept comprehension, application skills, communication skills and ability of judgment.</p> <p><b>Range:</b> Fulfills all of the course learning objectives one or a couple of which very well.</p>
<b>E</b>	<p><b>Level:</b> The student demonstrates sufficient results considering the requirements of the course learning objectives regarding problem-solving skills, concept comprehension, application skills, communication skills and ability of judgment.</p> <p><b>Range:</b> Fulfills all of the course learning objectives.</p>
<b>Fx</b>	<p><b>Level:</b> The student demonstrates insufficient results considering the requirements of the course learning objectives regarding problem-solving skills, concept comprehension, application skills, communication skill and ability of judgment.</p> <p><b>Range:</b> One or a couple of the course learning objectives are not fulfilled. Additional work is required to fulfill the learning objective/s.</p> <p><b>Revision possible within the timeframe indicated by the examiner.</b></p>
<b>F</b>	<p><b>Level:</b></p>

	<p>The student demonstrates insufficient results considering the requirements of the course learning objectives regarding problem-solving skills, concept comprehension, application skills, communication skills and ability of judgment.</p> <p><b>Range:</b> The course learning objectives are not fulfilled.</p>
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**For a more detailed explanation of the attributes, please turn to the appendix on the following page.**

## Appendix: Explanation of the attributes

Attribute	Explanation
Problem-solving skills	<p>The student has theoretical as well as practical ability to identify, formulate and solve problems within the field of the course. The ability to identify and formulate problems is important as the problem situations the student should be prepared for are generally unclear and several conceivable solutions can be used in a real-life case.</p> <p>The student shall individually or as a part of a group be able to define the assignment and its goal, choose the method and plan the implementation to solve the assignment problem.</p>
Concept comprehension	<p>The student is familiar with, understands and is able to define the concepts which are used in the course. The student is familiar with and understands the connections, methods and models which are used in the course and is able to use them and the concepts of the course to analyze theoretical and practical problems.</p> <p>In practice, concept comprehension means that the student is able to interpret and evaluate results of for example experiments and project works with the help of the course concepts, connections, methods and models.</p>
Application skills	<p>The student should be able to apply concepts, connections, methods and models included in the course. It could for example be practical handling of equipment, computer applications or application of norms and established calculation techniques.</p> <p>The student should, based on the course content, be able to handle measurement equipment, plan trials and use graphs and curve fitting as aids to reach results in addition to being able to estimate the uncertainty of the results. The student should under guidance also be able to handle more complex machine systems or equipment which are relevant considering the content of the course.</p> <p>The student should be able to carry out projects according a project plan, verify the outcome and of the specification of requirements is not fulfilled, attend to the shortcomings.</p>
Communication skills	<p>The student should have sufficient communication skills, both formal communication skills verbally and writing as well as informal communication skills in for example projects, so that the student is able to actively participate in identifying and formulating the problem, present results according to scientific and technical tradition as well as being able to cooperate in joint works.</p>
Ability of judgment	<p>Ability of judgment is the student's ability to make contextualized assessments based on relevant scientific, social</p>

	<p>and ethical aspects. Included in this is insight of the possibilities and limitations of the technology, its role in society and people's responsibility for how it is used, including social, financial, environmental and work environmental aspects.</p>
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