


Information about the computer-aided Mechanics I1, I2 and I3 exam in the summer semester 2020 in the PC-Hall in Essen. Current Status: October 5th, 2020

- 1.) The written form and the content form of the exam is retained. The tasks should be solved as usual on an exam sheet.
- 2.) The exam and the evaluation process will be computer-assisted in the PC hall in Essen. Participation in the exam is only possible in person on site and on the day of the exam in the specified exam period.
- 3.) As usual, you can use a double-sided, handwritten DIN A4 sheet of any content (no photocopies!) And a pocket calculator as an approved aid to solve the tasks. Please also bring writing and drawing utensils, such as Pens, rulers, compasses, etc. with you for the exam.
- 4.) The task will not be available in printed form but will be displayed on the screen.
- 5.) A pocket calculator is now particularly important and useful because, in contrast to the last few years, you now must calculate more with given parameters and values that must be inserted into the formulas and equations. For this reason, you should **not forget** your calculator!
- 6.) After you have solved a problem in writing, you can select or enter your answers on the screen. Depending on the task, the following different forms of interaction are available:
 - **Radio buttons** (single choice): The correct solution must be selected from a given list of several possible answers, with only one correct solution.
 - **Checkboxes** (multiple choice): The correct solution must be selected from a given list of several possible answers, whereby one or more answers can be correct.
 - You will receive partial points for each correctly ticked answer.
 - You will get a partial point deduction for every wrong answer! The partial point deduction is only offset within the partial task!
 - You cannot get less than 0 points within a subtask, even if you ticked more wrong than correct answers! Negative points for a partial task are therefore not possible!
 - **Textboxes**: The correct solution must be entered as a numerical value into a text field using the keyboard.
 - If the solution is incorrect, there is no point deduction for text fields.
 - If the results to be entered are to be rounded, you will receive a corresponding note on how they are to be rounded. For example:

"round the results to one decimal place if necessary! Example: $6.746 = 6.7$ and $6.756 = 6.8$ "

- The system accepts both periods and commas (3.14 or 3,14)
 - If values must be read off from a graphic and entered in a text field, the tolerances (reading accuracy) are given. If your solution is within the range given by the tolerances, your answer is correct.
 - Sometimes there is an indication of the maximum number of places before the comma a solution can have.  Means e.g. Max. 3 places before the comma.
- **Listboxes** (similar to a text field): A list with all possible answer options is displayed when you click on the arrow and an answer must be selected and transferred to the text field.
 - Wrong answers lead to a deduction of points within the subtask.
- 7.) You can switch back and forth between the individual subtasks at any time and change your answers at any time. You can solve the tasks in any order.
- 8.) Please note that only the solution entered on the PC is evaluated so that no subsequent errors are considered. For this reason, the careful and structured written solution to the tasks is more important than ever!
- 9.) If the subtasks are quite easy or can be solved independently of each other, there will be the same problem statement for several subtasks, as in the previous exams. If the problem does not change from one sub-task to the next, this is indicated with the word "continued" at the top of the page.
- 10.) If subtasks are based on the results of previous subtasks, in most cases a completely new task is given instead. Errors in previous subtasks therefore have then no influence on the solvability of the other subtasks.
- 11.) In order not to query the same content multiple times, in some subtasks you will be given (in addition to the problem statement) correct equations or correct Free body diagrams, with which you can continue calculating.
- 12.) The achievable number of points for each subtask is given after the assignment. E.g. "B) Question ... (3P)"
- 13.) A total of 100 points can be achieved. 50% of the points are required to pass the exam.
- 14.) The exam lasts 100 minutes. The time starts as soon as you have entered your login data (You receive the login data at your seat right before the exam starts).
- 15.) The remaining time is displayed in the top right corner. If the time has expired, the exam is automatically ended. You can also finish the exam beforehand.

- 16.) To avoid time bottlenecks, you can use the following rule of thumb as a guide: 1P corresponds to approx. 1-minute of needed solving time. You should therefore not work much longer than 5 minutes on a task with (5P) so that you can complete the entire exam within the given time!
- 17.) The number of points given does not say anything about the number of correct solutions! A task with (3P) can e.g. have 1 to 4 correct answer options.
- 18.) It is possible that not all texts, images and interaction fields fit on the screen. In this case you can scroll vertically and horizontally or use CTRL + mouse wheel to scale the content until it fits perfectly on the page.
- 19.) Tasks that you have worked on are marked with an arrow next to the task as soon as you switch to the next task. This arrow does not provide any information about whether the solution is correct and only serves as a guide to identify parts of the task that have not yet been completed.
- 20.) If a graphic is displayed incorrectly or not at all in rare cases, switch to another task and then back to reload the page.
- 21.) The exam program offers the possibility to use the scientific calculator installed in the computer. You may see a warning that you can ignore. However, we recommend that you bring your own calculator and use it.

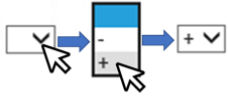
<u>CheckBox:</u> (Multiple Choice)	<u>RadioButton:</u> (Single Choice)	<u>TextBox:</u> (Examples)	<u>ListBox:</u>
<input type="checkbox"/> Solution 1 is correct <input type="checkbox"/> Solution 2 is correct <input checked="" type="checkbox"/> Solution 3 is correct <input checked="" type="checkbox"/> Solution 4 is correct <input type="checkbox"/> Solution 5 is correct	<input type="radio"/> Solution 1 is correct <input type="radio"/> Solution 2 is correct <input checked="" type="radio"/> Solution 3 is correct <input type="radio"/> Solution 4 is correct <input type="radio"/> Solution 5 is correct	$v_0 = $ <input type="text" value="25"/> 1/s $- \frac{13q_0 a}{\text{}} < x - 2a >^3$ <p>Min:1 Max:3 numbers!</p>	
<u>Wrong Solution:</u> negative points within subtask	<u>Wrong Solution:</u> no points	<u>Wrong Solution:</u> no points	<u>Wrong Solution:</u> negative points within subtask possible

Fig: Example of the possible forms of interaction and input

Important NOTE:

Please make sure you bring a suitable mouth and nose cover with you to the exam and observe all applicable hygiene measures of the University of Duisburg-Essen:

<https://www.uni-due.de/de/covid-19/>

Without a suitable mouth and nose covering, you may be denied access to the examination room by security staff!

More information on the hygiene measures for the Mechanics I1 to I3 exams will follow shortly.