

Grading scheme: Introduction to elementary particle physics (TN2811)

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How is the final grade computed

The grade of this course is made of three contributions:

- the final exam (or the retake),
- the weekly exercises.

The final grade of each student is a combination of the grade from the exam and the hand-in homework exercises. The relevant weight is 80 : 20 i.e. 80% of the grade comes from the exam and 20% from the hand-in exercises. However, it is important to note that homework can only work as a bonus for the student: if the grade a student gets after considering the homework and the exam is less than the relevant grade calculated just with the exam, then the latter is considered as the final grade. This might sound a bit complicated but I try to explain it below with some formulas and examples.

The formula based on which the grade is calculated is:

$$\text{grade} = \text{MAX} \left(\left[0.8 \times (\text{final exam}) + 0.2 \times \frac{1}{N} \sum_{i=1}^N (\text{homework})_i \right], [(\text{final exam})] \right)$$

Please note that no matter if you handed in exercises one time or as many times as the number of lectures, the average of the grade related to the exercises will be computed over the total number of lectures (i.e. you should hand-in as many sheets as the number of lectures to take advantage of the grading scheme). Furthermore, in order to have the possibility to use the bonus from homework you need to score at least 5.75. as a weighted average in the exams. In order to pass the course you need to get a grade larger than 5.75. This will be automatically translated into a 6, whereas anything below 5.75 will be downgraded to 5 (i.e. non-passing grade).

Both the final exam and the retake are “open book” so that you may consult the lecture notes and any book but not the worked-out exercises or any other material.

In all the examples the grade of the final exam can be replaced by the grade of the retake.

Some examples:

- **Example A:** A student hands in all or part of the exercise sheets and gets an average of 9.0 for this part. The same student scores 6.3 in the final exam. The final grade is then the maximum between $0.8 \times 6.3 + 0.2 \times 9.0 = 6.84 \rightarrow 7.0$ (including homework) and 6.3 (i.e., the exam grade). That means that in this case the final grade will be 7.
- **Example B:** A student hands in all or part of the exercise sheets and gets an average of 6.0 for this part. The same student scores 8.8 in the final exam. The final grade is then the maximum between $0.8 \times 8.8 + 0.2 \times 6.0 = 8.2 \rightarrow 8.0$ (including homework) and 8.8 (i.e., the exam grade). That means that in this case the final grade will be 8.8 that will be rounded to 9.
- **Example C:** A student hands in all or part of the exercise sheets and gets an average of 9.0 for this part. The same student scores 5 in the final exam. The exam grade is below 5.75 which makes 5 the final grade for the course i.e. the student did not pass the course. In this case the student won't have the possibility to use the homework bonus which would have raised the grade to $0.8 \times 5 + 0.2 \times 9.0 = 5.8 \rightarrow 6.0$.

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