

Information for the final exam in Heat and Mass Transfer I

Date	20th February 2016	Time	09:00 h
Duration	2.0 h		
Rooms	will be announced in the week before the exam, by notice at the institute and online in the L ² P		
Results	17th March 2016 (in Campus Office)	Time	16:00 h
Exam Review	18th March 2015 (place will be announced later)	Duration	16:00 to 18:00 h
Oral Exams	starting 21st March 2016 (registration during the exam review)		

Permitted

- A corresponding formulary will be **provided by the institute**
- Writing utensils with the exception of the colours red and green as well as pencils
- Non-programmable electronic calculators according to the study regulations
- Only the paper provided by the institute may be used.

Additional Information

- **PhD students must register with the outer office at least one week before the examination.**
- Please bring either a valid picture ID and your student ID card or your BlueCard to the examination.
- In case of any attempt to cheat, your exam will be taken away from you and marked as “failed”.
- The following chapters of the lecture notes are not relevant for the examination:
 - Chapter 3.2.5 paragraph “Circular fins”
 - Chapter 3.4
 - Chapter 3.5.2 paragraph “Semi-infinite plate, non negligible heat transfer resistance”
- The solutions must be filled in onto the answer sheet provided by the institute. Only the parts of solution that are transferred to the answer sheet are relevant for the exam grading.

Work Instructions

- **No pencils** and no red or green pens allowed.
- The solution fields are the only basis for mark evaluation.
- Transfer the equations and numerical solutions with the right units, into the correct solution fields. The number of fields is unrelated to the number of required equations.
- Intermediate equations that arise by transformation, or equations that are not explicitly requested in the task formulation or in the solution fields, must not be transferred.
- In the event that you consider an equation important to your solution, but cannot find the appropriate category for it, you can still write it in an empty box and briefly comment on it.
- If you want to correct mistakes, you can get new solution sheets for all the individual problems. You must clearly indicate by crossing out, which parts should not be evaluated.
- In case of multiple/alternative solutions to a problem or subproblem it will be dismissed, i. e. rated with no points.
- You must use the symbols and indices given in the task.
- All variables must be either given in the problem or be defined on the answer sheet, as a function of the given parameters.
- If the derivation of an equation is required, formulate a balance that sums up all incoming and outgoing flows. Without this derivation, the equation will not be evaluated, even if it is completely correct.
- If no derivation is required, but only the use of an equation, you may copy it from the formulary sheet. However, you must cross out unnecessary terms and adapt the nomenclature to the specific task.
- If necessary you may use the formulary sheet's appendix as a reference work. Mark used values in a distinct way.
- If the outcoming results are physically absurd, please indicate this with a short comment.
- Drawings: Please highlight the gradients at the ends of curve-sections with dashed tangents, so that horizontal gradients, asymptotes and symmetries can be clearly identified. Clearly indicate which lines are straight and which are curved. Label the coordinate axes and indicate known quantities.