Discrete Mathematics 1
Sommersemester 2012

Homework: example sheets.

It cannot be stressed enough, how important it is to solve as many problems as possible.

Written solutions There will be 12 example sheets, each of 4 or 5 problems. You should try to solve and write down all of them. However only one problem (it will be specified each week) will be examined. You should submit the written problems alone, however you are encouraged to discuss the problems and your solutions in groups. Points will be credited for submitted solutions, up to 10 each week. In total you need to achieve at least 50% of all possible points (each problem will be equally weighted). The new example sheet will be available every Tuesday after the lecture.

Presentation in classroom At the beginning of each practice session you will be required to mark the exercises from the current example sheet that you can present. You should only mark those exercises that you are able to present. In the case of an unsatisfactory presentation all exercises marked in that current week will be considered as not done. At the end you need to have marked at least 50% of all problems from the example sheets.

To summarize: in order to obtain certificate/ credit points(Übungsschein) you need to get:

- at least 50% of the points from the homeworks,
- at least 50% of the problems marked during the classes.

Mock exam Towards the end of the term there will be a week where you get a sample collection of problems that you should try to solve within 2 hours on your own, without any help. And then submit it a week after. Be honest to yourself. Such mock exam will be graded as if it were a real one. Thus, you get an impression how the final might look like and what you are expected to know.

Exam

The exam will take place on Monday, 16th of July from 10 to 12 a.m. The re-examination takes then place on Thursday, 30th of August from 10 to 12

a.m. There will be three types of problems:

- definitions, statements and proofs of the theorems from the lecture, so you should know what was taught in the lectures,
- homework problems, and
- new problems, which you probably haven't seen but should be able to solve with methods learned during the summer term.

Textbooks

- M. Aigner, A Course in Enumeration.
- N. L. Biggs, Discrete Mathematics.
- R. Diestel, Graph Theory, 4th edition.
- J. Matousek, J. Nesetril, Invitation to Discrete Mathematics.
- L. Lovász, J. Pelikán, K. Vesztergombi: Discrete Mathematics, Elementary and beyond.
- A. Tucker, Applied Combinatorics.
- D. West, Graph Theory.