Discrete Mathematics in Computer Science

A1. Organizational Matters

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University of Basel

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A1.1 Organizational Matters

People

Malte Helmert

Gabriele Röger

Lecturers

Malte Helmert

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Gabriele Röger

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People

Assistant

Salomé Eriksson

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Tutors

Augusto B. Corrêa

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Florian Pommerening

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Time & Place

Lectures

- most of the lectures will be asynchronous (pre-recorded)
- recapitulation and Q&A on Zoom every Wednesday 16:15
  → Q&A session for exam preparation on December 16

Time & Place

Exercise Sessions on Zoom (starting September 30)

Wednesday: 17:15–18:00

- group 1 (Augusto B. Corrêa; in English)
- group 2 (Florian Pommerening; in German)

important: please send Gabi an email with your preferred language until Monday 23:59 (September 21).

On Sep 23 17:15-18:00 there will be an introduction to LaTeX.

Enrolment

- `https://services.unibas.ch/`
- deadline: October 12
- better today, so that you get all relevant emails and access to the ADAM workspace

Discrete Mathematics Course on the Web

Course Homepage

`https://dmi.unibas.ch/en/discrete-mathematics-in-computer-science/`

- course information
- slides

Discrete Mathematics Course on ADAM

ADAM

`https://adam.unibas.ch/`

- learning modules
- submission of exercise sheets
- model solutions for exercise sheets
- forum for announcements and questions
  (followed by lecturers, assistant and tutors)
- link to discord server (for interaction among participants)

Target Audience

target audience:

- this is an introductory course on the Bachelor's level
- we cover mathematical foundations that are
  particularly useful for the computer science curriculum
- main target audience: B.Sc. Computer Science, 3rd semester
- all other students welcome

prerequisites:

- basic programming skills

Exam

- 6 ECTS credits
- no physical exam; exact setup still to be determined
- Monday January 25, 4-6pm
- admission to exam:
  - must pass the weekly assignments;
    up to two failed assignments are allowed
  - you pass a weekly assignment with $\geq 60\%$ of the marks
- grade for course determined exclusively by the exam

Exercises

Exercise sheets (homework assignments):

- mostly theoretical exercises
- some programming exercises

Exercise sessions:

- questions about exercise sheets
- questions about the course
- participation voluntary but recommended

Exercises

- exercise sheets on Adam every Monday
- must be solved in groups of two ($1 \neq 2 \neq 3$)
- due Monday the following week
  (upload to Adam at `https://adam.unibas.ch/`)
- we only accept PDFs created with LaTeX.
  Pictures may only be included if appropriate, not for creating a submission from photos of handwritten solutions.

Plagiarism

Plagiarism (Wikipedia)

> *Plagiarism is the "wrongful appropriation" and "stealing and publication" of another author's "language, thoughts, ideas, or expressions" and the representation of them as one's own original work.*

consequences:

- 0 marks for the exercise sheet (first time)
- exclusion from exam (second time)

if in doubt: check with us what is (and isn't) OK before submitting
exercises too difficult? we are happy to help!

Questions on Organization

Questions?

A1.2 About this Course

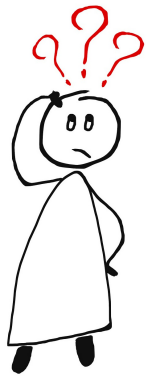
Content: Discrete Mathematics in Computer Science

- mathematical thinking and proof techniques
- group theory and permutations
- sets and relations
- graphs and trees
- modular arithmetic
- recurrence relations
- formal logic

Learning Goals

- proficiency in abstract thinking
- ability to formalize mathematical ideas and arguments
- knowledge of common mathematical tools in computer science

Questions about the Course



Questions?