Discrete Mathematics in Computer Science A1. Organizational Matters

Malte Helmert, Gabriele Röger

University of Basel

September 17, 2025

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A1.1 Organizational Matters

Discrete Mathematics in Computer Science

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A1.1 Organizational Matters

A1.2 About this Course

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People

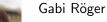
Lecturers



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Assistant



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People



Tutors

- Maria Desteffani (maria.desteffani@unibas.ch)
- ► Pascal von Fellenberg (pascal.vonfellenberg@unibas.ch)
- Carina Schrenk (carina.schrenk@unibas.ch)
- Carina Fehr (carina.fehr@unibas.ch)

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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, 1st semester
- all other students welcome

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Enrolment

- https://services.unibas.ch/
- ▶ official deadline: October 13
- better today, so that you get all relevant emails and access to the ADAM workspace

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Discrete Mathematics Course on ADAM

ADAM

https://adam.unibas.ch/

- link to website with slides
- submission of exercise sheets
- model solutions for exercise sheets
- ▶ link to Discord server (for interaction among participants, but you also get answers from lecturers, assistant and tutors)
- additional material

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Language

► The course is taught in English.

- ► All lecture material is in English.
- ▶ We (lecturers, assistant, tutors) speak German and English.
- ▶ You are also welcome to ask questions in German.
- ▶ Also exercise submissions can be in English or German.

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Lectures

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► Mon 16:15–18:00, Hörsaal U1.131, Biozentrum Wed 16:15–17:00, Hörsaal 1, Pharmazentrum

- ► first half of the course taught by Gabi Röger, second half by Malte Helmert
- ▶ on December 17: Q&A session for exam preparation

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Exercises

Exercise sheets (homework assignments):

- mostly theoretical exercises
- exercise sheets on ADAM every Monday after the lecture
- must be solved in groups of two or three (not alone or in larger groups)
- due on the following Sunday (23:59)
 (upload to ADAM at https://adam.unibas.ch/)
- we only accept readable PDFs
 - \rightarrow with a bonus point per sheet created with LATEX (template, cheat sheet and intro on ADAM)

Question: Who has experience with LATEX?

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Exercise Sessions With Tutors

Exercise Sessions (starting September 24/25/27)

Wed 17:15−18:00 Alte Universität, Seminarraum −201

with Carina S.

Wed 17:15–18:00 Spiegelgasse 1, Computer-Labor U1.001

with Pascal

Thu 17:15–18:00 Spiegelgasse 1, Seminarraum 00.003

with Maria

Fri 17:15–18:00 Pharmazentrum, Labor U1075

with Carina F.

- common mistakes/misconceptions (full model solutions on ADAM)
- questions about exercise sheets and the course
- > as time permits, support while you solve the exercises

important: please fill in the survey on ADAM for the group allocation until Friday 12:00 (September 19).

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Exam

Written exam

- ▶ 6 ECTS credits
- Monday, January 19, 2026, 16:00-18:00
- Maurice E. Müller Saal. Biozentrum
- admission to exam: 50% of the exercise marks
- grade for course determined exclusively by the exam

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Official calculation

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Required Time

- ▶ 1 CP \approx 30 hours
- ► The course has 6 CP.
- You need to invest about 180 hours.
- ► With 40 hours for exam preparation, this leaves 10–11 hours/week during the teaching period.

Alternative calculation

- ▶ A full-time student achieves 30 CP per semester.
- ▶ The course corresponds to 1/5 of 30 CP.
- ▶ With a 42h week, this still corresponds to 8.4 hours/week.

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Plagiarism

Plagiarism

Plagiarism is presenting someone else's work, ideas, or words as your own, without proper attribution.

For example:

- Using someone's text without citation
- ► Paraphrasing too closely
- Using information from a source without attribution
- Passing off Al-generated content as your own original work

Long-term impact:

- ► You undermine your own learning.
- You start to lose confidence in your ability to think, write, and solve problems independently.
- Damage to academic reputation and professional consequences in future careers

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Plagiarism in Exercises

- ➤ You may discuss material from the course, including the exercise assignments, with your peers.
- ▶ But: You have to independently write down your exercise solutions (in your team).
- ▶ Help from an LLM is acceptable to the same extent as it is acceptable from someone who is not a member of your team.

Immediate consequences of plagiarism:

- 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!

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Special Needs?

► We (and the university) strive for equality of students with disabilities or chronic illnesses.

- ► Contact the lecturers for small adaptations.
- ► Contact the Students Without Barriers (StoB) service point for general adaptations and disadvantage compensation.

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About this Cours

Content: Discrete Mathematics in Computer Science

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

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About this Course

Learning Goals

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

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