Welcome:
CS-101 Advanced Information, Computation, Communication

Karl Aberer
Distributed Information Systems Laboratory

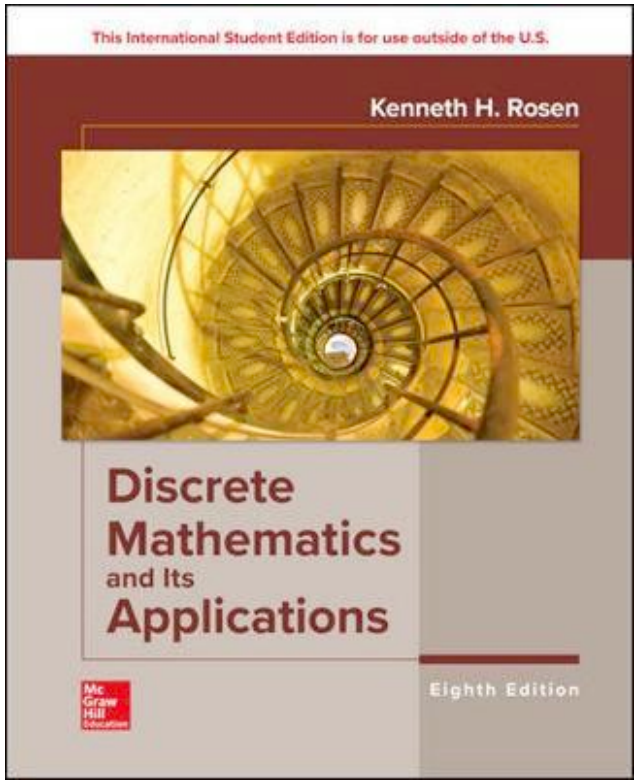
In the age of COVID

- Everything is different
- We will be working largely online
- Everything might evolve and change throughout the semester

- Program of today:
  - Hour 1: Everything you need to know on the organization
  - Hour 2: A teaser on the contents of the class

Textbook

This class will be following closely the book "Discrete Mathematics and Its Applications" by Kenneth H. Rosen, published by McGraw-Hill



Online Platforms

1. Moodle
   - You should be registered and you should have been there
   - You find all the links and details in the accouncements
2. Zoom
   - Since you are here you know it
3. Switchtube
   - For registered lecture and pre-registered course content
4. Discord
   - For exercises and interacting with your assitants

Questions

- I have been visiting Moodle: yes/no
- I found the information sheet for the course: yes/no
- I have been already using Discord: yes/no
- I have a suitable working environment at home: yes/no
- I am on campus today: yes/no

Weekly Schedule

Every week is dedicated to a **Topic**

We will proceed in the following steps:

- Friday afternoon, 16:00 – 18:00: **self-study**
  - **Pre-registered videos, chapters for reading, slides, exercises**
  - **Switchtube, Moodle, Discord**
- Tuesday morning, 8:00 – 10:00: **online session**
  - **Content summary, quizzes, question-answer, elaborate examples and proofs**
  - **Zoom, Switchtube (registered session)**
- Friday morning, 10:00 – 12:00: **exercise**
  - **Exercises, interaction with assistants, on-campus**
  - **Discord**

Exercises

Every student will be assigned an **exercise team** with a head assistants

We have 24 teams, arranged into the A,B,C group students

The teams that are on campus can meet in the assigned class rooms

INJ218 (96 - 2 groups), **INM10** (62 -1 group), **INM11** (42 - 1 group), **INM200** (79 - 1 group), **INM202** (86 - 2 groups), **INR219** (79 -1 group)

Detailed schedule will be communicated when we have student data!

Attendance

- Attending the online lectures or participating in the exercise sessions is not mandatory, but strongly recommended.

- It is also recommended to actively participate through questions!

Questions

You have 4 channels to ask questions

Platform	modality	when	answered	visibility
Moodle	offline	After studying	Tuesday session	public
Zoom chat	online	During online class	Tuesday session	public
Discord	offline	During the week	Friday exercise	Public or private
Discord	online	During Friday exercise	Friday exercise	Public or private

Topics of the Course

Week 1	Propositional Logic
Week 2	Predicate Logic
Week 3	Proofs
Week 4	Sets, Functions, Relations
Week 5	Relations, Sequences, Summations
Week 6	Algorithms
Week 7	Complexity of Algorithms
Week 8	Number Theory
Week 9	Induction and Recursion
Week 10	Counting
Week 11	Advanced Counting
Week 12	Probability
Week 13	Advanced Probability

Exam

- There will be one exam (the final exam)
- There will not be a midterm exam
- The final exam will be in both French and English.
- It will consist of 24 multiple choice questions on subjects treated during the semester.
- Per multiple choice question precisely one of the four answers is correct.
- Representative example questions will be made available.

Grading

- The grade is calculated based on the number of questions for which only the correct answer is ticked.
- There is no penalty for incorrectly answering a question (i.e., ticking a wrong answer, or ticking multiple answers), so on average guessing is more advantageous than not answering a question at all (i.e., not ticking any of the four answers).
- It greatly helps a fast grading process if you follow the instructions given on the cover sheet of your final exam.

Conditions

Absence

- You have to submit a doctor’s attest if you miss the final exam due to sickness.
- No other reasons for not taking the final exam will be accepted.

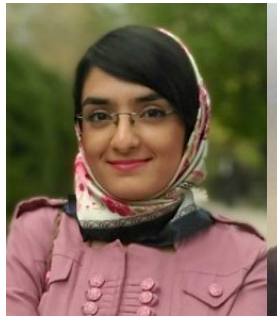
Irregular behaviour

- In case of irregular behaviour during the final exam EPFL’s standard policies apply.

Contacts

Lecturer: Karl Aberer, karl.aberer@epfl.ch

- You can contact me anytime by email.
- If necessary, I will schedule a Zoom meeting to clarify critical questions.




Teaching assistants:

Negar Foroutan, negar.foroutan@epfl.ch

Mohammadreza Banaei, mohammadreza.banaei@epfl.ch

- Please contact them for any organisational questions or questions related to the course content that you cannot resolve with your teaching assistant.

Program of this Week

No Friday morning exercise session!

- Use the time to make sure that you are familiar with all platforms!
- Ask if anything is not clear.

Friday afternoon: You will receive the materials on the first topic:

- Propositional logic

Stay tuned!

We might to adapt our organization to the circumstances, experiences and feedbacks received