

Survival Guide for 02105 Algorithms and Data Structures 1

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About the Guide This note is a short survival guide to the most important things you need to know about 02105 Algorithms and Data Structures 1.

Course Structure The format of the day for week x is as follows:

8.00-10.00 Exercise class with TAs on material from week $x - 1$. This includes group and presentation of exercises.

10.00-10.45 Walkthrough of selected exercises from week $x - 1$.

10.50-12.00 Lectures on material from week x .

Before week x we expect that you have studied the material and exercises from week $x - 1$ and have solved at least half of these exercises. On the first day of the course we will work on exercises from week 0 and have lectures on the material from week 1. The weekplan, material, rooms, and links are all on the homepage.

Book We use the book "Introduction to Algorithms", 3rd edition (CLRS), Cormen, Leieron, Rivest, and Stein.

Tools We use CodeJudge for evaluating programs.

Screencasts As a supplement we have screencasts available for the material in the lectures. These were recorded during COVID-19 lockdowns.

Exercises Some exercises are marked with a short code i $[\]$, which means the following:

- $[w]$ A warmup exercise. These should be easy if you have understood the material for the week.
- $[*]$ and $[**]$ A difficult and a very difficult exercise, respectively. These exercises require a good idea and creative insights to solve.
- $[\dagger]$ An exercise that is available on CodeJudge.

Note that the order of the exercises on the weekplan is *not* important. Work on the exercises in your preferred order and focus your efforts on exercises that challenge you. Also, study the exercises in detail beforehand class and solve at least half of them. Do not expect to have time to solve all exercises during class. Do not despair if you are unable to solve $[*]$ and/or $[**]$ exercises.

Hand-in Exercises During the course we will also post a number of (non-mandatory/voluntary) hand-in exercises. Submit these to a TA for feedback.

Exercise Classes For the exercises in the first week, just show up and participate on any of exercises classes. Pick a class that is not overly crowded. The full list of exercise classes are listed on the homepage. During the first lecture you sign up for one the two types of exercise classes:

Group Work Exercise Class Most of the time is used for group work on exercises, while the remaining time is used for student presentations of solutions and discussion.

Presentation Exercise Class Just as the group work exercise class except that most of the time is now used for student presentations of solutions and discussion.

The presentation exercise class impose extra demands on your preparation and effort in the course, but in return you get the opportunity to gain a deeper insight into the material and learn more. Conversely, if you are not prepared enough to actively present exercises and participate in discussions you will not get benefits of the presentation exercise class.