

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.

Book We mainly use the book "Introduction to Algorithms", 3rd edition (CLRS), Cormen, Leieron, Rivest, and Stein. See the course homepage for other materials used in the course.

Weekly Structure The homepage organizes material and their exercises together in a single week. The schedule organizes exercise classes on the following week before the next lecture. More precisely, each week proceeds as follows:

8.00-10.00 Exercise class with TAs on material from the previous lecture.

10.00-10.45 Walkthrough of selected exercises (from the above exercise class).

10.50-12.00 Lectures on new material.

The very first exercise class of the semester is listed as "week 0" (since there is no corresponding lecture). The weekplans, materials, rooms, etc., are on the course homepage.

Exercises Before an exercise class, familiarize yourself with all exercises and work on at least half. Do not expect to have time to solve all exercises during class. Work on the exercises in your preferred order and focus on weak points in your understanding. 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 usually require clever and creative insights to solve. Work on these after you have solved the other exercises.
- $[\dagger]$ An exercise that involves programming.

Hand-in Exercises During the course, we will post several (non-mandatory/voluntary) hand-in exercises. The course has a single individual mandatory exercise near the middle. See the homepage for details of the hand-in exercises.

Programming You can use any standard imperative programming language (e.g., Python, Java, C, C++) for the implementation exercises. The default programming language is Python.

Screencasts In case of illness, etc., you can find screencasts for most of the lectures. These were recorded during COVID-19 lockdowns and are available on the homepage from those years. These are not supported, and we highly recommend attending exercise classes and lectures in person.