

Midterm Exam Review

The Midterm in CS1173 is coming up, and here is what you need to focus on.

This page can be found on the CS Homepage, under Review for Midterm

The objectives of this course are two fold – learn about presenting data, and learn about analyzing data, and so the exam focuses on the components of those topics.

Visualization is the presentation of graphs. In this, you need to know how to select the right graph, create it, and interpret it. The data pyramid is pertinent here.

Analysis is what you do to understand the story the author of the graph is trying to tell you.

Computing is the manipulation of the data – the mechanics.

The midterm attempts to evenly distribute questions across all three of these components.

Practically, for Visualization, you will need to be able to do these activities - identify the level of the data pyramid, given an example, draw a small graph set by hand, and the big one is interpreting the variety of graphs we have covered in the first half of the semester. Those graphs are line graphs, bar charts (regular and stacked), pie charts and error bar charts. Error bar charts come in two types – mean with standard deviation and median with IQR. For the graphs, know the strengths and weaknesses of the types of graphs and what they are best used for.

For Analysis, you will be doing simple analysis, which include bullet points that indicate you understand when to use the different mathematical tools we've talked about – mean, median, AAD, MAD, etc. You will analyze graphs provided.

For Computing, you will need to write code – most of the tasks will require you to write code that can be written in, at most, 3 lines of code. The best examples are the HWP1s used in the traditional courses. They are available on BB under the MidTerm review material.

Notice that nowhere will you be asked to write code to generate figures – you are given the figures to analyze.

You will need pencil and a calculator is optional.

Good luck!