

## Exam 02: Study Guide

The exam has two parts with equal weights, an open-notes take-home part and a closed-notes in-class part.

The take-home portion will consist of a small data collection exercise and data analysis where you apply one or more of the techniques that we have learned so far. You are welcome to use R (and I will even provide a short template to get you started), but you can also do the calculations by hand. The only part you hand in will be a paper with a short description and your results. I will distribute the instructions at the end of class on Wednesday.

The in-class exam will have 4 questions, similar to those on the worksheets 9 and 10. There will be one question that you have already seen and three questions where you need to find either the MLE or ratio-test statistic for a new distribution. In the latter case, there will be only one observation and only one data point. For example, “find the MLE of  $p$  when observing  $X \sim \text{Bin}(n, p)$  with a fixed and known  $n$ .”