

Stat 446 Midterm Study Guide

The midterm grade will consist of two parts, each work approximately 50%. The two parts of this exam directly relate to tasks as a practicing statistician. The in class exam is designed to assess your ability to discuss and describe statistical terms. The take home portion is focused on your ability to implement and describe statistical procedures.

In Class Exam

The in class portion of the exam will contain two parts: short answer questions similar to those on the homeworks and a sequence of story problems about a research study.

There will be approximately six short answer questions worth four points each. Review all of the questions posed on the quizzes. The following guide will be used for evaluating these questions:

- 4 points: Complete,
- 3 points: Substantial,
- 2 points: Developing, and
- 1 points: Minimal.

Similar to the quizzes, my intent is that you will keep the answers to approximately 3 sentences.

The story problems will set up a situation where you are advising a researcher on how to devise a sampling scheme to address a research question. It will be primarily qualitative, but may include calculating an estimate (not variance or confidence interval) in a situation where the math does not require a calculator.

Take home exam

For the take home exam, you may use the textbook, any course materials provided on D2L, homeworks, and labs. You **may not** discuss questions or work together with classmates. You are welcome to contact the instructor with any questions related to better explanation or understanding of the questions themselves. The instructor will not troubleshoot R code on the midterm. Any relevant material from questions will be posted to D2L for the benefit of the entire class.

The midterm will be similar in length to a standard homework. The questions will focus on the entire sampling scheme: sample size estimation, point estimation, confidence intervals, and interpretation.