

Midterm 1 will cover Chapter 8. Material from Chapter 7 (and 447) can appear, but only in relation to Chapter 8.

You should be able to:

- Define and compute: bias, mean square error, error of estimation, standard error.
- Know definition of an unbiased estimator and verify an estimator is or isn't one.
- Know the common unbiased point estimators for mean, proportion of population (polling) and variance. As well as the standard error of the point estimators for mean, proportion of population.
- Use a pivotal quantity to compute a confidence interval.
- Compute confidence intervals for the mean/difference of means using large-samples.
- Determine the size of a sample sample needed to obtain a given confidence coefficient.
- Compute confidence intervals for mean/difference of means and variance when sampling from the normal distribution.
- Whatever else was on the homework.

I will provide you with the tables from the book for the normal, t, and χ^2 distributions. Calculators will not be needed.