
AGSC 137
Agricultural Statistics
Spring 2024

First Examination Study Guide

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- Understand basic statistical terms.
- Understand the difference between descriptive statistics and statistical inference
- Understand the common misuses of statistics, including bias, faulty generalizations, faulty deduction, non-comparable data, error in semantics, oversimplification, and spurious accuracy.
- Understand the difference between qualitative and quantitative variables.
- Understand the difference between discrete and continuous variables.
- Understand the basic algebra of summation.
- Understand the different ways of presenting data.
- Know the difference between histograms and frequency polygons.
- Know when to use relative frequency polygons.
- Understand the difference between the less-than and more-than cumulative frequency distributions (and cumulative relative frequency distributions).
- Know how to work with measures of central tendency of ungrouped and grouped data, including arithmetic mean, midrange, median, and mode (any questions in Part I of the exam will be based on small sets of ungrouped data).
- Understand how the mean, mode, and median compare for symmetrical and skewed distributions.
- Know how to work with measures of dispersion of grouped and ungrouped data, including range, quartile deviation, average deviation, variance, and standard deviation (any questions in Part I of the exam will be based on small sets of ungrouped data).
- Be able to assess the relative variability in a data set using the coefficient of variation.
- Be able to solve a variety of statistical problems (similar to those completed in the class as well as problems included on homework assignments) using MS Excel.

Note: The first exam will have two parts. Part 1 will include multiple choice and fill-in-the-blanks questions. Part 2 will include problem(s) to be solved using MS Excel. Both parts of the exam will have to be accessed and completed online under Blackboard.