

Quantitative Methods (GEO 441)
In-Class Test 1 Study Guide
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Please know the following for the first in-class test:

- What each of the statistical test/methods we covered does
- The difference between laws, hypotheses, theories, etc...
- The major symbols (Σ , α , μ , χ , σ , etc...).
- The characteristics of the normal and binomial distributions.
- The measures of central tendency and dispersion.
- The 4 moments about the mean.
- The terms from the lectures and the book (e.g. autocorrelation, homoscedasticity, etc...).
- Alpha level, Type I error, Type II error.
- The difference between parametric and non-parametric tests.
- Continuous and discrete variables.
- The list of 4 spatial considerations, unit size and probability problem, and the 4 fallacies

Calculations

There are two calculations worth 20 points each.

- Independent t Test OR Mann-Whitney U Test (I will choose 1)
- Parametric AOV OR Kruskal-Wallis Test (I will choose 1)

Know how to do each of these. The equations will be on the test. You must know when and how to use these equations.

Know what the following tests/graphs are used for:

- Two-Sample t-test
- Parametric AOV
- One-Sample t-test
- Q-Q plot
- Bar Graph
- Box plot
- Kruskal-Wallis test
- P-P plot
- Games-Howell test
- Jarque-Bera test
- Scatter plot
- W/S test
- Mann-Whitney U
- Histogram
- F-test