Quiz 2 Review Outline

Descriptive statistics

- Median and mode
- Variance and standard deviation

Distributions and probability

- Skewness and distribution shape
- Cumulative distribution function (CDF)
- Discrete and continuous distributions
- Normal distribution and z-scores
- Bayes' theorem

Statistical inference and estimation

- Descriptive vs. inferential statistics
- Maximum Likelihood Estimation (MLE)
- Method of Moments (MoM)
- Kernel Density Estimation (KDE)
- Central Limit Theorem (CLT)

Hypothesis testing

- Null and alternative hypotheses
- p-values and significance levels
- One-sample t-tests

Correlation

- Strength and direction of linear relationships
- Pearson correlation coefficient

Quiz format: 20 multiple-choice questions (40 points) and 4 calculation questions (60 points).