MBAM 593 Applied Data Analysis Waiver Content

This course covers the basic techniques of applied statistical analysis beginning with an exploration of the meaning of data. Methods of describing data on individual variables and relationships between variables are covered. Sampling and probability are introduced as a basis for understanding how to infer results from samples to the populations from which they are drawn. These techniques include estimation, tests of mean differences, differences in distributions, and regression. Extensive use of Excel is taught in class and Excel output will be used on the waiver examination.

Content areas:

- Data Collection
  - Sample size calculations
  - Random Sampling
  - Stratified Sampling
  - Cluster Sampling
  - Periodic Sampling
- Presenting Data in Tables and Charts
- Summarizing and Describing Numerical Data
  - Discrete
    - Nominal
    - Ordinal
  - Continuous
    - Interval
    - Ratio
- Probability theory
- Probability Distributions
  - Uniform
  - Normal
  - Exponential
  - Poisson
- Confidence Intervals around a Mean, Proportion, and Variance
- Hypothesis Testing on Means, Proportions, and Variance
- Simple Linear Regression
- Multiple Regression
- Analysis of Variance

Recommended Text:

Any graduate or undergraduate textbook that covers the content above will contain sufficient coverage to prepare for the exam. It is to your benefit to review using a textbook that presents information in an Excel format.