DATA606 – FALL 2018

Instructor: Jason Bryer, Ph.D.
Class Meetup: Wednesday 8:00pm to 9:00pm
Office Hours: By appointment
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Course Description

This course covers basic techniques in probability and statistics that are important in the field of data analytics. Discrete probability models, sampling from infinite and finite populations, statistical distributions, basic Bayesian statistics, and non-parametric statistical techniques for categorical data are covered in this course. Each of these statistical concepts will be applied in a variety of real-world scenarios through the use of case studies and customized data sets.

Course Learning Outcomes:

By then end of the course, students should be able to:

- Understand the foundations of probability theory and perform basic probability calculations.
- Build basic stochastic models for commonly encountered business problems.
- Model situations involving uncertainty using appropriate probability distributions and conditional techniques.
- Explore and summarize data using descriptive statistics.
- Test hypotheses using classical and modern computational techniques.
- Construct estimators and calculate intervals using classical and modern computational techniques.
- Perform basic Bayesian statistical techniques for estimation and testing hypotheses.