

Spring 2023

NUR 69200: Applied Statistics in Healthcare

Monday
9:30am-12:20pm

Zachary Hass, PhD

Credits: 3

Course Description:

This course surveys statistical methods within the context of healthcare research applications. Emphasis is placed on gaining an intuition for methodological purpose, basic application, and interpretation. Methods covered include descriptive statistics, probability distributions, hypothesis testing, chi-square test, parametric and non-parametric means testing, ANOVA, linear regression, logistic regression, survival analysis, bootstrapping, mixed models, principal components analysis, clustering, and power analysis. Additional topics covered if time permits. Familiarity with basic probability and statistical methods at the undergraduate level is assumed. Lectures and lab will occur in a single period using SPSS software. Assignments follow from methods covered in lecture and lab.

Course Objectives

Identify different data types and their properties

Develop intuition for purposes of commonly used statistical methodology.

Match methodology with data types and research questions.

Apply methods learned in SPSS software to provided datasets.

Be able to produce appropriate tables and figures for dissemination of analysis results.

Be able to interpret results as they apply practically to healthcare research questions.