



# Advanced Applied Stat Analysis Math 01523-1C

## Certificate of Graduate Study Spring Semester 2019

In this course we will learn some advance statistical methods, including research designs, and data procedures commonly used in health care. With today's evidence-based practice, it is essential for the health care professionals to understand the data collection and appropriate statistical analysis.

In this course you will be conducting statistical analyses yourself, using the statistical software package **JMP 14 Pro**. You will also gain a working knowledge in **R**, a popular programming language. You will be using actual data to conduct an appropriate analysis in **JMP/R** and then use the results to answer research questions of interest. We will review published medical research and answer questions about different aspects of the study design or sampling protocol, statistical methods used, and conclusions reached.

### Start Date and Time

January 23-May 22 • Wednesdays 6-8:45 p.m.  
Cooper University Hospital

### Certificate Program Highlights

- All courses are located on the Cooper campus, Room TBD
- Evening hours
- 4 courses or 12 graduate semester hours
- Certificate awarded at completion
- Applicants can register as non-matriculated for the first three classes.

### Objectives

#### DESCRIPTION:

- Discuss and explain what statistics is and how it is used in the field of public health.
- Understand the common statistical techniques and terminology used in studies that are presented in the popular press and health related journals.
- Be able to identify suitable statistical techniques for the data, how to interpret such data and derive conclusions.

### Specific Topics

#### WE PLAN TO COVER THE FOLLOWING TOPICS:

- Effect Size
- Power, and Sample Size
- Multiple Regression and Analysis of Covariance (ANCOVA).
- Logistic Regression
- Advanced ANOVA Methods
- Nonparametric Test  
Methods used in Epidemiology and Meta-Analysis

### Tuition

Rowan graduate tuition is \$2400 for the three credit course.

For questions regarding the Certificate program please contact Anthony Breitzman at [Breitzman@rowan.edu](mailto:Breitzman@rowan.edu).

For assistance with the registration form please contact Nancy Street at [Street-Nancy@cooperhealth.edu](mailto:Street-Nancy@cooperhealth.edu)

To apply to Computational Data Management Certificate of Graduate Study, visit <http://admissions.rowanu.com/> to begin the application process.

