

Epidemiology and Population Health Summer Institute at Columbia University



ASYNCHRONOUS COURSE

OFFERED THROUGHOUT JUNE 2023

Introduction to Biostatistics

DESCRIPTION

The course will give an overview of the basic tools for the collection, analysis, and presentation of data in all areas of public health. The topics covered will include descriptive statistics; hypothesis testing; methods for comparison of discrete and continuous data including ANOVA, t-test, correlation, chi-squared analysis, linear and logistic regression, and non-parametric approaches. This course will provide a foundation for the skill-building courses and focused epidemiologic courses.

INSTRUCTORS

- **Sheila Nemeth, PhD**
- **Martina Pavlicova, PhD, MS**

OBJECTIVES

By the end of the course, participants will be able to

- Apply numerical and tabular techniques commonly used to characterize and summarize public health data
 - Describe basic principles of key concepts including hypothesis testing, type I and type II errors, power, and confidence bounds
 - Identify appropriate statistical methods
- (ANOVA, correlation, linear regression, logistic regression) to be applied in a given research setting, apply these methods, and acknowledge the limitations of those methods
- Evaluate computer output containing statistical procedures and interpret it. Apply learned methods to other courses in public health

EARLY DISCOUNTS
AVAILABLE UNTIL
APRIL 1, 2023

REGISTRATION OPEN
THROUGH MAY 1, 2023

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