

# EPIDEMIOLOGY AND BIOSTATISTICS

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Department Website ([https://www.sc.edu/study/colleges\\_schools/public\\_health/study/areas\\_of\\_study/epidemiology\\_biostatistics/](https://www.sc.edu/study/colleges_schools/public_health/study/areas_of_study/epidemiology_biostatistics/))

Anthony Alberg, *Chair*

## Courses

### **BIOS 410 - Introduction to Biostatistical Modeling (3 Credits)**

Statistical modeling, primarily using applications in public health. Measures of agreement, principles of statistical inference, correlation, simple and multiple linear regression, categorical independent variables, interaction, repeated measures, and logistic regression.

**Prerequisites:** STAT 205 or equivalent.

### **BIOS 490 - Independent Study (1-3 Credits)**

Enrollment and topic to be approved in advance by advisor and instructor. May be repeated.

**Graduation with Leadership Distinction:** GLD: Research

### **EPID 349 - Infectious Disease Epidemiology (3 Credits)**

This introductory course will review the history of infectious diseases, principles of infectious disease transmission, relevant study design and analysis techniques, and the clinical epidemiology of specific pathogens by transmission route categories. This course requires a prerequisite of a solid understanding of basic science and public health curricula, such as molecular biology or anatomy-physiology; or permission from instructor.

### **EPID 394 - Special Topics in Epidemiology (1-3 Credits)**

Novel and emerging themes in epidemiology. Content varies by instructor and title. May be repeated for a total of 9 credit hours.

### **EPID 410 - Principles of Epidemiology (3 Credits)**

Introduction to descriptive and analytical epidemiology. Topics will include the distribution and determinants of disease, surveillance, outbreak investigations, measures of association, screening tests, bias, and causal reasoning.

**Prerequisite or Corequisite:** STAT 201 or STAT 205.

**Graduation with Leadership Distinction:** GLD: Research

### **EPID 490 - Independent Study (1-3 Credits)**

Enrollment and topic to be approved in advance by advisor and instructor. May be repeated.

**Prerequisites:** Instructor Permission.

**Graduation with Leadership Distinction:** GLD: Research

### **EPID 542 - Global Health Epidemiology (3 Credits)**

This course will introduce epidemiologic concepts and methods using cases studies examining current global health challenges. Students will gain an understanding of the role of epidemiology in understanding the distribution of disease and risk factors, and developing, implementing and evaluating public health interventions globally.

### **EPID 594 - Special Topics in Epidemiology (1-6 Credits)**

This course will introduce epidemiologic concepts and methods using cases studies examining current global health challenges. Students will gain an understanding of the role of epidemiology in understanding the distribution of disease and risk factors, and developing, implementing and evaluating public health interventions globally.

### **EPID 661 - Parasitology (4 Credits)**

Parasites of biological, economic, and public health importance. Three lecture and three laboratory hours per week.

**Prerequisites:** 300 level Biology course or equivalent.

**Cross-listed course:** BIOL 531, ENHS 661