

# EPIB - EPIDEMIOLOGY AND BIOSTATISTICS

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## **EPIB300 Biostatistics for Public Health Practice (3 Credits)**

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

**Prerequisite:** Minimum grade of C- in CHEM131 and CHEM132.

**Restriction:** Must be in Public Health Science program; and must have earned a minimum of 60 credits.

**Credit Only Granted for:** EPIB300, EPIB315 or HLTH300.

## **EPIB301 Epidemiology for Public Health Practice (3 Credits)**

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

**Restriction:** Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits. Cross-listed with: HLTH301.

**Credit Only Granted for:** EPIB301 or HLTH301.

## **EPIB315 Biostatistics for Public Health Practice (3 Credits)**

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

**Prerequisite:** Minimum grade of C- in EPIB301; or must have completed or be concurrently enrolled in HLTH200.

**Restriction:** Must be in one of the following programs (Public Health Science; Community Health). Cross-listed with: HLTH300.

**Credit Only Granted for:** EPIB300, EPIB315 or HLTH300.

**Formerly:** EPIB300.

**Additional Information:** Course is cross-listed; students should check program advising information to determine which counts for their major. Note that EPIB300 (old number) is still offered for students under previous curriculum.

## **EPIB330 Introduction to Infectious Disease Epidemiology (3 Credits)**

Introduces students to the study of infectious disease through the application of epidemiologic methods. Students will review how infectious diseases impact global health, and examine epidemiological concepts related to infectious disease. These concepts include infectious disease transmission, prevention and control; study design; and outbreak and epidemic investigations. Infectious disease topics of concern to public health professionals will be covered including the COVID-19 pandemic, sexually transmitted infections, foodborne infections, healthcare-acquired infections and neglected tropical diseases, and future trends in the field of infectious diseases.

**Prerequisite:** EPIB301.

## **EPIB399 Epidemiology and Biostatistics Independent Study (1-3 Credits)**

The EPIB undergraduate independent study is an opportunity for undergraduates from other departments in the SPH or the university to work with an Epidemiology and Biostatistics faculty member on research or special projects that are based out of EPIB.

**Restriction:** Must have earned a minimum of 60 credits; and minimum cumulative GPA of 3.0.

**Repeatable to:** 6 credits if content differs.

## **EPIB400 Obesity: An Epidemiologic Perspective (3 Credits)**

The epidemic of obesity, its causes and consequences, and issues related to energy balance will be covered. Students will characterize the obesity epidemic both nationally and internationally, compare and contrast the metrics of obesity, understand the biological consequences of different obesity phenotypes, and describe characteristics of the obesogenic environment. Throughout the course students will be introduced to the application of epidemiological methods to studies of obesity.

**Prerequisite:** 1 course with a minimum grade of C- from (EPIB301, HLTH301).

## **EPIB463 Introduction to Biostatistical Programming (3 Credits)**

An introduction to basic programming principles; data analysis tasks such as the calculation of summary statistics and the creation of graphs; and the implementation of statistical analysis concepts such as T-tests, ANOVA and correlation. Querying and managing data sets using SQL in SAS will also be covered.

## **EPIB489 Special Topics in Epidemiology or Biostatistics (1-6 Credits)**

Special topics in epidemiology or biostatistics.

**Repeatable to:** 6 credits if content differs.