

# Biostatistics (BSTT)

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**BSTT 400. Biostatistics I. 4 hours.**

Descriptive statistics, basic probability concepts, one- and two-sample statistical inference, analysis of variance, and simple linear regression. Introduction to statistical data analysis software. Course Information: Enrollment restricted to public health students and healthcare administration students; other graduate, professional and advanced undergraduate students admitted by consent as space permits. To obtain consent, see the SPH registrar.

**BSTT 401. Biostatistics II. 4 hours.**

Simple and multiple linear regression, stepwise regression, multifactor analysis of variance and covariance, non-parametric methods, logistic regression, analysis of categorical data; extensive use of computer software. Course Information: Prerequisite(s): BSTT 400.

**BSTT 402. Health Policy for Epidemiologists and Biostatisticians. 1 hour.**

Epidemiological data and biostatistics provide the evidence to support the development and justification of policies. Public health policy interventions, factors influencing political and social environments and the evaluation of policy-making. Course Information: Same as EPID 402.

**BSTT 413. Introduction to Data Analysis w/ R. 2 hours.**

An introductory overview of statistical programming using R in the context of describing and analyzing public health data. Course Information: Extensive computer use required. Recommended background: BSTT 400; or IPHS 402.

**BSTT 426. Health Data Analytics Using Python Programming. 3 hours.**

Covers methodologies of online data collection by Python Programming. Topics include: introduction to Python, Information retrieval Techniques, Retrieving and analyzing information from medical data sources, IBM Bluemix. Course Information: Extensive computer use required. Prerequisite(s): No prerequisites except that some very basic understanding of programming in SAS or R or some other programming language is needed along with basic analytical knowledge. Motivation to learn programming concepts is key. Recommended Background: IPHS 402 or EPID 406 or BSTT 494.

**BSTT 494. Introductory Special Topics in Biostatistics. 1-4 hours.**

Special topics in biostatistics. Content varies. Course Information: May be repeated. Students may register in more than one section per term. Prerequisite(s): Consent of the instructor.