

PhD in Biostatistics

Admission Requirements

In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

- **Baccalaureate Field** A major in the biological, physical, or social sciences is preferred.
- **Grade Point Average** At least 3.00/4.00.
- **Tests Required** GRE General. For GRE General Tests, the combined verbal and quantitative scores must be at least 300.
- **Minimum English Competency Test Score**
 - **TOEFL iBT** 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21, **OR**,
 - **IELTS Academic** 6.5, with 6.0 in each of the four subscores, **OR**,
 - **PTE-Academic** 54, with subscores of Reading 51, Listening 47, Speaking 53, and Writing 56.
- **Letters of Recommendation** Three required.
- **Personal Statement** Required; the statement should address the applicant's intended research, career goals, and reason for pursuing the PhD degree in the chosen area.
- **Other Requirements** Applicants may submit their master's thesis as evidence of their ability to plan and complete significant health-related research.

Degree Requirements

- **Minimum Semester Hours Required:** 96 from the baccalaureate
- **Course Work:** At least 9 hours must be in 500-level didactic courses in the student's major area. If a collateral area is required by the major, at least 6 hours must be in the collateral area at the 500 level.
- Students in Biostatistics are allowed only one grade of C in required courses. A student who receives two Cs in required courses will not be allowed to graduate from the program. A student may retake a course one time and attempt to replace the C with a higher grade.

Code	Title	Hours
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School of Public Health Core Requirements

EPID 403	Introduction to Epidemiology: Principles and Methods
IPHS 520	Foundations of Public Health ^a

Required Non-Credit Training

Human Subjects Research (HSR)
Title IX Training
SPH Academic Integrity Tutorial

Biostatistics Divisional Core Requirements

BSTT 560	Large Sample Theory
BSTT 561	Advanced Statistical Inference
BSTT 562	Linear Models
BSTT 565	Computational Statistics
BSTT 595	Biostatistics Research Seminar

Select at least two of the following (minimum 8 semester hours):

BSTT 563	Generalized Linear Models
BSTT 564	Missing Data
BSTT 566	Bayesian Methods

BSTT 567	Advanced Survival Analysis
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Electives

Electives can be any graduate level course of the students choosing. BSTT 400, BSTT 401, BSTT 505, BSTT 523, BSTT 524, and BSTT 525 are not suitable electives.

a *IPHS 520 is only required of PhD students without an MPH degree.*

- **Dissertation Proposal** : Required.
- **Dissertation:** Required. Students must register for IPHS 599 for at least 32 semester hours.
- **Preliminary Exam:** The written exam includes both in-class and take-home portions. The in-class portion is scheduled for four hours, while students have one week to complete the take-home portion. Material for the exam is based primarily on the 500-level biostatistics courses as well as the required statistics courses. The oral examination follows the written examination (within one month) and may re-examine students based on the answers to the written portion or include additional material based on required coursework.
- **Other Requirements:** Each PhD student is required to obtain experience in classroom teaching. The teaching experience for doctoral candidates should at minimum consist of planning, leading and evaluating a minimum of two classroom sessions, which may be online or in-class sessions. If students are clear that they will be pursuing a career in academe, they should be encouraged by their advisors to go beyond this minimum. All PhD students' efforts should be supervised and evaluated by appropriate faculty. Documentation should accompany this evaluation so that PhD students are clearly rated on their efforts at planning, teaching, and evaluating the students in their classes. Efforts of students who are laboratory or teaching assistants should be considered vital teaching experiences as long as there is appropriate evaluation of such efforts by faculty and students. It is the responsibility of the student and his or her faculty advisor to make sure the student's instructional experience is properly evaluated.