

# BIOSTATISTICS

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## Degree Requirements

### Doctor of Philosophy

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (<https://gradschool.psu.edu/graduate-education-policies/>)

Each student in the Biostatistics Ph.D. program is expected to acquire knowledge in the disciplines of Biostatistics.

Each student must complete a total of 31 credits of graduate level course work, the majority of which are 500 level courses, specifically:

- 22 credits in required courses
- 6 additional credits in Epidemiology or Health Services Research
- 3 credits in elective courses, plus
- Dissertation

After the completion of the first year of course work, each student is required to take a qualifying examination, based on the coursework in PHS 523, PHS 524, PHS 525, PHS 526 and PHS 527. The decision to allow the student to continue in the program will be made by a committee of Graduate Faculty in the Biostatistics program. In addition, a comprehensive examination is administered at the completion of all course work, followed by the final oral examination in defense of the Ph.D. dissertation.

### Courses

Code	Title	Credits
<b>Required Courses</b>		
PHS 500	Research Ethics for Clinical Investigators	1
PHS 523	Multivariate Analysis	3
PHS 524	Longitudinal Data Analysis	3
PHS 526	Categorical Data Analysis	3
PHS 527	Survival Analysis	3
PHS 528	Bayesian Methods	3
PHS 580	Clinical Trials: Design and Analysis	3
STAT 553	Asymptotic Tools	3
Select 6 credits of the following:		6
PHS 535	Quality of Care Measurement	
PHS 536	Health Survey Research Methods	
PHS 550	Principles of Epidemiology	
PHS 551	Advanced Epidemiological Methods	
PHS 552	Molecular Epidemiology of Chronic Disease	
PHS 570	Health Economics and Economic Evaluation	
<b>Electives</b>		
Select 3 credits of the following:		3
PHS 516	Statistical Genetics	
STAT 561	Statistical Inference I	
STAT 562	Statistical Inference II	
<b>Total Credits</b>		<b>31</b>