



2020-2021 PROGRAM GUIDE: Graduate Certificate - Biostatistics

Information in this document is updated annually. Please refer to the document for the year you entered the program. Student resources, policies, and procedures applicable to all School of Public Health graduate students can be found on the SPH website, www.ohsu-psu-sph.org.

Overview

Director: Rongwei (Rochelle) Fu, PhD

ohsu-psu-sph.org/certificate-in-biostatistics

The Biostatistics Graduate Certificate Program is designed to provide basic to intermediate graduate-level biostatistics training for a diverse range of students in health sciences. It is primarily aimed at those wishing to become more skilled in applied biostatistics methods.

Program Competencies

Graduates of the certificate program will be equipped with well-rounded knowledge in applied biostatistics and skills to:

- Perform a broad range of basic and intermediate level applied statistical procedures that are required in basic, clinical, population and translational sciences.
- Interpret and summarize analysis results in research reports and papers and communicate them to individuals with varying degrees of statistical knowledge.
- Conduct analyses for one's own research projects or provide support to collaborative research teams.

GC: Biostatistics Program of Study

Course Number	Course Title	Credits
Required Coursework (15 Credits)		
BSTA 511	Estimation and Hypothesis Testing for Applied Biostatistics	4
BSTA 512	Linear Models	4
BSTA 513	Categorical Data Analysis	4
BSTA 530	Biostatistics Lab	3
Elective Coursework (9 Credits)		
BMI 550	Computational Biology I	4
BMI 551	Computational Biology II	4
BSTA 500	Reading and Research in Biostatistics	1-3
BSTA 514	Survival Analysis	3
BSTA 515	Data Management and Analysis in SAS	3
BSTA 516	Design and Analysis of Surveys	3
BSTA 517	Statistical Methods in Clinical Trials	3
BSTA 519	Applied Longitudinal Data Analysis	3
BSTA 522	Statistical Learning and Big Data	3
BSTA 523	Design of Experiments: Statistical Principles of Research Design & Analysis	3
BSTA 524	Statistical Methods for Next Generation Sequencing Data	3
EPI 512	Epidemiology I	4
EPI 513	Epidemiology II (Methods)	4
	Other courses with Program Director permission	
Total Credits		24



Graduate Certificate Biostatistics: Sample Course Schedule

Below are sample schedules if you plan to finish the certificate in one year. Other schedules are possible; always consult your Faculty Advisor regarding your program of study and course selection to determine the schedule that fits best for you. If you receive federal financial aid, it's important to be aware of financial aid requirements when planning your schedule. Federal loan require at least 1/2 time enrollment (5 credits). Please refer to the OHSU's "[Financial Aid Explained](#)" and the [Standard Enrollment Plan](#), paying particular attention to summer term, for more information.

One Year - Sample Schedule			
Fall	Winter	Spring	Summer
BSTA 511 Est/Hypothesis Tstng Applied BIOS (4 cr.)	BSTA 512 Linear Models (4 cr.)	BSTA 513 Categorical Data Anlys (4 cr.)	
Optional Elective: EPI 512 Epidemiology I (4 cr.)	Elective(s) e.g. BSTA 514 Survival Analysis (3 cr.), or EPI 513 Epidemiology II (4 cr.), or BSTA 504 topics in Biostatistics (3 cr.)	BSTA 530 Biostats Lab (3 cr.)	
		Elective(s), e.g., BSTA 516 Design & Anlys Surveys (3 cr.), or BSTA 523 Design of Experiments (3 cr.)	
One Year - Sample Schedule			
Fall	Winter	Spring	Summer
BSTA 511 Est/Hypothesis Tstng Applied BIOS (4 cr.)	BSTA 512 Linear Models (4 cr.)	BSTA 513 Categorical Data Anlys (4 cr.)	BSTA 517 Stat Mthds in Clinical Trials (3 cr.)
	Elective(s) e.g. BSTA 514 Survival Analysis (3 cr.), or BSTA 504 topics in Biostatistics (3 cr.)	Elective(s), e.g., BSTA 516 Design & Anlys Surveys (3 cr.), or BSTA 523 Design of Experiments (3 cr.)	BSTA 530 Biostats Lab (3 cr.)

Continuation to the MS or MPH in Biostatistics Program

Students in the Graduate Certificate may apply to the MS or MPH in Biostatistics program if they wish to pursue more training in Biostatistics beyond the Graduate Certificate. They may apply while going through, or after completing the graduate certificate program. All credits earned in the certificate program may be applied to the MS Biostatistics, or to the MPH Biostatistics degree, as appropriate.

Grades

Students are not permitted to progress through the BSTA 511-513 course sequence unless they achieve at least a B- in each of the courses.

Biostatistics & Design Program (BDP)

The Biostatistics & Design Program (BDP) is one of the OHSU shared resource cores, and hosted by the Biostatistics group. BDP provides biostatistics support to basic, clinical and population science at all phases of research from grant submission, protocol development, and study design to statistical analysis, interpretation of analysis results and manuscript preparation. Many biostatistics faculty are involved in BDP work, and BDP also has many PhD and MS level staff providing statistical support and consultation. The BDP handles hundreds of



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research projects each year and provides many internship opportunities for students. Students should contact BDP Director, Dr. Jodi Lapidus, for internship opportunities.

Knight Cancer Institute Biostatistics Shared Resources (Knight BSR)

The Knight Cancer Institute Biostatistics Shared Resource (Knight BSR) is supported by the National Cancer Institute's Cancer Center Support Grant. Knight BSR provides comprehensive and integrated biostatistics support to basic, clinical and population science researchers conducting cancer research at OHSU. The BSR also provides students with opportunities to work on ongoing cancer research projects. Students should contact the BSR Interim Director, Dr. Byung Park, for opportunities for an internship and/or work experience.

Graduate Student Resources, Policies, and Procedures

Policies and procedures applicable to all School of Public Health graduate students can be found on the SPH website, www.ohsu-psu-sph.org. Please review the student policies and procedures listed there, including but not limited to the following sections:

- Advising
- Academic Standing
- Academic Dismissal
- Academic Dishonesty
- Codes of Conduct
- Educational Records Privacy
- Minimum Course Grade Requirements
- Recognition of Prior Earned Credit
- Course Waiver Policy
- Incomplete Coursework
- Course Approvals (Electives)
- Independent Study
- International Travel and Coursework
- Continuous Enrollment
- Leave of Absence
- Withdrawal Policy
- Time Limits
- Student Complaint Procedure
- Degree and Certificate Conferral

Resources and support services available to SPH graduate students are listed on the SPH website, www.ohsu-psu-sph.org. Please review the resources listed there.