

Code	Title	Hours
Core Requirements		
Public health core courses:		
SPHG 351	Foundations of Public Health	3
SPHG 352	Public Health Systems and Solutions	4
EPID 600	Principles of Epidemiology for Public Health	3
Biostatistics courses:		
BIOS 500H	Introduction to Biostatistics	3
BIOS 511	Introduction to Statistical Computing and Data Management	4
BIOS 645	Principles of Experimental Analysis	3
BIOS 650	Basic Elements of Probability and Statistical Inference I	3
BIOS 664	Sample Survey Methodology	4
BIOS 668	Design of Public Health Studies	3
BIOS 691	Field Observations in Biostatistics	1
Additional Requirements		
BIOL 101 & 101L	Principles of Biology and Introductory Biology Laboratory ^{1, H, F}	4
COMP 110 or COMP 116	Introduction to Programming and Data Science ^{1, H} or Introduction to Scientific Programming	3
MATH 231	Calculus of Functions of One Variable I ^{1, H, F}	4
MATH 232	Calculus of Functions of One Variable II ^{1, H, F}	4
MATH 233	Calculus of Functions of Several Variables ^{1, H, F}	4
BIOL 103 or BIOL 104	How Cells Function ^F or Biodiversity	3
MATH 381 or STOR 215	Discrete Mathematics ^H or Foundations of Decision Sciences	3
MATH 347	Linear Algebra for Applications	3
MATH 521 or MATH 528	Advanced Calculus I ^H or Mathematical Methods for the Physical Sciences I	3
Total Hours		62

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

F FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

¹ Required before matriculation into the program

Sample Plan of Study

Sample plans can be used as a guide to identify the courses required to complete the major and other requirements needed for degree completion within the expected eight semesters. The actual degree plan may differ depending on the course of study selected (second major, minor, etc.). Students should meet with their academic advisor to create a degree plan that is specific and unique to their interests. The sample

plans represented in this catalog are intended for first-year students entering UNC–Chapel Hill in the fall term. Some courses may not be offered every term.

First Year		Hours
First-Year Foundation Courses		
IDST 101	College Thriving	1
ENGL 105 or ENGL 105I	English Composition and Rhetoric or English Composition and Rhetoric (Interdisciplinary)	3
First-Year Seminar or First-Year Launch (https://catalog.unc.edu/undergraduate/ideas-in-action/first-year-seminars-launches/) ^F		3
Triple-I and Data Literacy (https://catalog.unc.edu/undergraduate/ideas-in-action/triple-i/)		4
Global Language through level 3 (https://catalog.unc.edu/undergraduate/ideas-in-action/global-language/)		varies
Major Courses		
BIOL 101 & 101L	Principles of Biology and Introductory Biology Laboratory ^{H, F}	4
MATH 231	Calculus of Functions of One Variable I ^{H, F}	4
MATH 232	Calculus of Functions of One Variable II ^{H, F}	4
Hours		23
Sophomore Year		
COMP 110 or COMP 116	Introduction to Programming and Data Science ^H or Introduction to Scientific Programming	3
MATH 233	Calculus of Functions of Several Variables ^{H, F}	4
Hours		7
Junior Year		
Fall Semester		
BIOS 500H	Introduction to Biostatistics (fall only)	3
BIOS 511	Introduction to Statistical Computing and Data Management (fall only)	4
MATH 381 or STOR 215	Discrete Mathematics ^H or Foundations of Decision Sciences	3
SPHG 351	Foundations of Public Health	3
EPID 600	Principles of Epidemiology for Public Health ¹	3
Hours		16
Spring Semester		
BIOS 645	Principles of Experimental Analysis (spring only)	3
MATH 521 or MATH 528	Advanced Calculus I ^H or Mathematical Methods for the Physical Sciences I	3
SPHG 352	Public Health Systems and Solutions	4
BIOL 103 or BIOL 104	How Cells Function ^F or Biodiversity	3
Hours		13
Senior Year		
Fall Semester		
BIOS 650	Basic Elements of Probability and Statistical Inference I (fall only)	3

BIOS 691	Field Observations in Biostatistics (fall only)	1
MATH 347	Linear Algebra for Applications	3
Hours		7
Spring Semester		
BIOS 664	Sample Survey Methodology (spring only)	4
BIOS 668	Design of Public Health Studies (spring only)	3
Hours		7
Total Hours		73

- H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.
- F FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

¹ EPID 600 strongly recommended in the junior year, but may be taken in the senior year.

Special Opportunities in the Department of Biostatistics

Dual Bachelor's–Master's Degree Program

Undergraduate students with appropriate math and biostatistics backgrounds have the opportunity to pursue a dual bachelor's–graduate degree. This dual B.S.P.H.–M.S. program identifies a coherent course of study for students to complete some of the M.S. degree requirements in biostatistics while pursuing a B.S.P.H. degree with a major in biostatistics. More information is available on the department website (<http://sph.unc.edu/bios/faqs-undergraduates-2/>).

Honors in Biostatistics

The Department of Biostatistics offers an honors program in which undergraduates can pursue individualized study and undertake a research project in their senior year. Students who have a grade point average of 3.3 or higher are eligible to participate in honors research and write an honors thesis. Faculty members' readiness to guide the students in their honors work governs the final selection of those allowed to enter the program. Students completing an honors thesis must register for BIOS 693H and BIOS 694H.

Experiential Education

The required course, BIOS 664, fulfills the experiential education Gen Ed requirement in the Making Connections curriculum. In addition, students are required to take BIOS 691 (usually during the fall semester of the senior year). This course consists of an orientation to and observation of six or more major nonacademic institutions in North Carolina's Research Triangle Park area that employ biostatisticians, including contract research organizations and nonprofit companies. BIOS 691 does not fulfill the General Education experiential education requirement.

Laboratory Teaching Internships and Assistantships

Students are encouraged to investigate part-time employment during the academic year and full-time employment during the summer after their

junior year with members of our faculty and their collaborators on current research and service projects.

Study Abroad

Students are encouraged to participate in the University's study abroad programs in the summers or before matriculating to the B.S.P.H. in biostatistics program. Identification of a study abroad program early in the student's career is necessary for course planning purposes.

Undergraduate Awards

The Theta Chapter of Delta Omega honors one student among the department's graduates with an award of excellence. Awards are presented in the spring as part of the biostatistics awards ceremony. Among the recent graduates, a notable proportion of students have been inducted into Phi Beta Kappa.

Undergraduate Research

Students are encouraged to consider doing senior honors research and should consult individual faculty members for opportunities. However, some students choose to take advantage of the myriad part-time employment opportunities with our faculty members on their research and service projects or opportunities within nearby Research Triangle Park.

Contact Information

Department of Biostatistics

Visit Program Website (<http://www.sph.unc.edu/bios/>)
3103 McGavran-Greenberg Hall, CB# 7420
(919) 966-7256

Chair

Lisa Lavange

Program Director

Jane Monaco
monaco@email.unc.edu