

BIOLOGICAL AND BIOMEDICAL SCIENCES PROGRAM (GRAD)

The Biological and Biomedical Sciences Program (BBSP) of the University of North Carolina at Chapel Hill is an umbrella admissions and first-year program for 15 Ph.D. programs in the School of Medicine, Eshelman School of Pharmacy, Gillings School of Global Public Health, and the College of Arts and Sciences. The following programs are affiliated with BBSP. Applied Physical Sciences, Biochemistry and Biophysics, Bioinformatics and Computational Biology, Biology (MCDB Division), Cell Biology and Physiology, Chemistry (Biological Chemistry Division), Genetics and Molecular Biology, Microbiology and Immunology, Neuroscience, Nutrition (Biochemistry Division), Oral and Craniofacial Biomedicine, Pathobiology and Translational Science, Pharmaceutical Sciences (Medicinal Chemistry and Molecular Pharmaceutics tracks), Pharmacology, and Toxicology. Students interested in pursuing a Ph.D. in any of these programs apply to the BBSP. For a complete list of faculty in BBSP see the faculty page (<http://bbbsp.unc.edu/research/faculty-database/>) of the program's website. See individual program listings for more information about individual Ph.D. programs. These also can be accessed from the BBSP website (<https://bbbsp.unc.edu/>).

Admission Requirements

A bachelor's degree (B.S. or B.A.) is required for admission into BBSP. Successful applicants have a strong background in the biological sciences, chemistry, physics, or mathematics. Only applicants with both strong academic records and prior research experience are favorably considered. An interview is required prior to admission.

Financial Assistance

All BBSP students receive an annual stipend (\$37,000 in 2024–2025). Tuition, health insurance, and fees are covered by the program.

During their first year, BBSP students are part of weekly small-group discussions led by faculty members. These groups provide a research community for students until they join a degree-granting program. In these groups, students develop professional skills, including scientific writing, original research presentations, responsible conduct of research, teamwork, and leadership. The faculty members in these groups advise students in selecting laboratory rotations and courses that meet their individual interests.

BBSP students choose from more than 300 faculty members as they pursue three required research rotations in the fall and spring semesters of their first year. At the completion of the third rotation, each student selects an academic advisor who will provide guidance for their dissertation research training. The student also joins a Ph.D. program that the advisor is affiliated with and completes that program's requirements.

The BBSP does not have a core scientific curriculum and only requires students to enroll in research rotations (BBSP 901) and small-group discussions (BBSP 902). Students may take courses offered by any of the participating Ph.D. programs (see individual program listings for available courses). After joining a specific Ph.D. program, students must fulfill the specific coursework and other requirements of that program.

BBSP

Graduate-level Courses

BBSP 705. Best Practices for Rigor and Reproducibility in Research. 1 Credits.

A workshop to introduce best practices for increasing rigor and reproducibility in research. Permission of course directors required.

Rules & Requirements

Grading Status: Letter grade.

Same as: BIOL 705.

BBSP 710. Biostatistics for Laboratory Scientists. 2 Credits.

BBSP 710 introduces basic concepts of statistics in the experimental biological sciences to 2nd year+ graduate students. Focus is on mastery of common statistical skills and familiarity with advanced analytical skills, with an emphasis on graphing and statistical analysis using GraphPad Prism. Sample topics include experimental design, hypothesis testing, inferential statistics, power, correlation and regression. No previous background in statistics is required, but access to multiple devices and a stable internet connection is needed.

Rules & Requirements

Grading Status: Letter grade.

BBSP 890. Special Topics in the Biological and Biomedical Sciences Program. 1-3 Credits.

Permission of the instructor. Seminar/Discussion course dealing with advanced topics in the biological and biomedical sciences.

Rules & Requirements

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics; 9 total credits. 3 total completions.

Grading Status: Letter grade.

BBSP 901. Research in Biological and Biomedical Sciences. 3 Credits.

Enrollment in BBSP program required. Lab rotations with BBSP faculty.

Rules & Requirements

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics.

Grading Status: Letter grade.

BBSP 902. Seminar in Biological and Biomedical Sciences. 0.5-4 Credits.

Enrollment in BBSP program required. First Year Group course of small interest-based groups led by faculty advisors. Includes professional skills development in a research community.

Rules & Requirements

Repeat Rules: May be repeated for credit.

Grading Status: Letter grade.

BBSP 903B. Research in Biological and Biomedical Sciences - Part II. 1.5 Credits.

Enrollment in BBSP program required. Lab rotations with BBSP faculty. This lab rotation is Part II of a two part lab rotation which spans fall and spring semesters.

Rules & Requirements

Grading Status: Letter grade.

BBSP 903A. Research in Biological and Biomedical Sciences - Part I. 1.5

Credits.

Enrollment in BBSP program required. Lab rotations with BBSP faculty. This lab rotation is Part I of a two part lab rotation which spans fall and spring semesters.

Rules & Requirements

Grading Status: Letter grade.

Contact Information

Biological and Biomedical Sciences Program

Visit Program Website (<http://bbsp.unc.edu>)

Director

David McDonald
david.mcdonald@unc.edu

Director

Lisa Tarantino
lisat@med.unc.edu