

# 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, dental insurance, and fees are covered by the program.

## Biological & Biomedical Sciences Program (BBSP)

The Biological and Biomedical Sciences Program (BBSP) at UNC Chapel Hill is an umbrella application and first-year training program for bioscience Ph.D. students. With just 1 application BBSP students have access to over 350 research faculty affiliated with 15 different Ph.D. programs across UNC's campus. BBSP provides individualized advising, a community, and professional skills training during the first year to establish a solid foundation of skills. The Ph.D. programs selected by BBSP students at the end of their first year provide comprehensive scientific training at the highest level. UNC also offers extensive professional development programming aimed at preparing the next generation of scientific leaders. We welcome applicants from a variety of educational backgrounds and professional pathways to consider UNC for graduate training.

## Course Requirements

Code	Title	Hours
<b>Core Courses</b>		
BBSP 901	Research in Biological and Biomedical Sciences (Fall and Spring)	6
BBSP 902	Seminar in Biological and Biomedical Sciences (Fall and Spring)	4

BBSP 903A	Research in Biological and Biomedical Sciences - Part I (Fall)	1.5
BBSP 903B	Research in Biological and Biomedical Sciences - Part II (Spring)	1.5
BBSP 705	Best Practices for Rigor and Reproducibility in Research (Spring)	1

### Electives

Any course in biomedical sciences, typically those offered by our 15 partner PhD programs. (Fall and Spring)	4
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<b>Minimum Hours</b>	<b>18</b>
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## Ph.D. Programs

- Applied Physical Sciences (<https://catalog.unc.edu/graduate/schools-departments/applied-physical-sciences/>)
- Biochemistry & Biophysics (<https://catalog.unc.edu/graduate/schools-departments/biochemistry-biophysics/>)
- Bioinformatics & Computational Biology (<https://catalog.unc.edu/graduate/schools-departments/bioinformatics-computational-biology/>)
- Biology (<https://catalog.unc.edu/graduate/schools-departments/biology/>)
- Cell Biology & Physiology (<https://catalog.unc.edu/graduate/schools-departments/cell-biology-physiology/>)
- Chemistry (<https://catalog.unc.edu/graduate/schools-departments/chemistry/>)
- Genetics & Molecular Biology (<https://catalog.unc.edu/graduate/schools-departments/genetics-molecular-biology/>)
- Microbiology & Immunology (<https://catalog.unc.edu/graduate/schools-departments/microbiology-immunology/>)
- Neuroscience (<https://catalog.unc.edu/graduate/schools-departments/neuroscience/>)
- Nutrition (<https://catalog.unc.edu/graduate/schools-departments/nutrition/>)
- Oral & Craniofacial Biomedicine (<https://catalog.unc.edu/graduate/schools-departments/dentistry/>)
- Pathobiology & Translational Science (<https://catalog.unc.edu/graduate/schools-departments/pathology-laboratory-medicine/>)
- Pharmaceutical Sciences (<https://catalog.unc.edu/graduate/schools-departments/eshelman-school-pharmacy/>)
- Pharmacology (<https://catalog.unc.edu/graduate/schools-departments/pharmacology/>)
- Toxicology & Environmental Medicine (<https://catalog.unc.edu/graduate/schools-departments/toxicology/>)

## 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.

**Faculty Director**

Michelle Itano  
itano@unc.edu

**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://bbbsp.unc.edu>)

**Director**

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