

# BIOMEDICAL SCIENCES, PHD

## What Makes Tulane's Program Unique?

Tulane's Ph.D. Program in Biomedical Sciences takes an interdisciplinary approach to graduate education and research. There are many ways to shape your Tulane experience to fit your needs and career goals, and our program has an array of options to accelerate, customize, and enrich your education and, ultimately, your career. The program is dynamic, giving you an array of controls that allows you to heavily customize your experience here to suit you.

**All PhD students receive a full tuition waiver and a stipend of approximately \$30,000 per year for the entire duration of the program, usually between four and seven years.**

Students complete all course requirements in their first two years. Core courses including Advanced Cell Biology, Biochemistry, Human Molecular Genetics, Biostatistics and Systems Biology, which along with Basic Science electives provide a broad foundation for future research. More than one hundred scientists from Basic Science and Clinical Departments and School Of Medicine Centers participate fully in the BMS program. Students have ample opportunities to match with one of these scientists by conducting at least three lab rotations in their first year prior to selecting their Dissertation Advisor. A funded rotation prior to classes begin in August is optional. Finally, you get to study in perhaps the most unique city in the United States – New Orleans

## Requirements

In the first two semesters, all students take the identical core curriculum, described below. In conjunction with the course work in the first year, students rotate in 6-week blocks through three of the Program's participating research laboratories of the student's choice. This allows students to become more familiar with BMS research and faculty. Students should choose a Dissertation Advisor by the end of the second semester but must choose a Dissertation Advisor by the end of the third semester. Students may choose to further specify their study by choosing an Area of Research Emphasis (a Departmental Track in Anatomy, Biochemistry, Medical Genetics and Genomics, Microbiology and Immunology, Pathology, Pharmacology or Physiology). An area of research emphasis may add further course requirements beyond those required for the Biomedical Sciences PhD degree without specialization.

Course	Title	Credit Hours
<b>Year 1</b>		
<b>Fall</b>		
BMSP 6070	Advanced Cell Biology	3
GBCH 6010	Graduate Biochemistry	4
BMSP 7140	Biomedical Sci Seminar	1
BMSP 7120	Research Methods (2 credits for seminar, 2 for first rotation)	4
BMSP 7100	Biomed Sciences Workshop	1
Credit Hours		13
<b>Spring</b>		
GBCH 7250	Biomed Stats & Data Analysis	2
EPID 7810	Human Molecular Genetics	3
BMSP 7770	Systems Biology	3
BMSP 7150	Seminar	1
BMSP 7130	Research Methods (2 credits each for 2nd and 3rd rotations)	4
BMSP 7110	Workshop	1
Credit Hours		14
<b>Year 2</b>		
<b>Fall</b>		
BMSP 7140	Biomedical Sci Seminar	1
BMSP 7100	Biomed Sciences Workshop	1
BMSP 7990	Independent Study	1-6
Electives (to be chosen in consultation with dissertation advisor)		
Credit Hours		3-8
<b>Spring</b>		
BMSP 7150	Seminar	1
Workshop <sup>1</sup>		1-6

MIIM 7400	Responsible Conduct-Biomed Rsh	2
Electives (to be chosen in consultation with dissertation advisor)		
	Credit Hours	4-9
<b>Summer Session</b>		
Students must begin their dissertation research or perform more research rotations during the Summer semester of their first year.		
	Credit Hours	0
Total Credit Hours		34-44

<sup>1</sup> BMSP 7110 Workshop (1 c.h.), BMSP 7990 Independent Study (1-6 c.h.), or another mentor focused workshop course

**Ideally, the student should choose a dissertation advisor at the end of the Spring semester.**

Total for Second Year Fall + Spring must equal at least 21 credit hours

Coursework in the 2nd year must include at least 6 credit hours of lecture-based course work (Electives) and 11 credit hours of Independent Study (Research).

A minimum of 48 credit hours of course work and independent study is required for the PhD. All formal course work is to be completed within the first two years. Students may take Independent Study (BMSP 7990 Independent Study (1-6 c.h.) or equivalent) for 1-6 credits per semester for a maximum of 12 credits total during the first two years. The remaining hours of coursework are selected from the elective curriculum by the student in consultation with the dissertation advisor. Once coursework is completed, the student must demonstrate the ability to carry out independent study and research in a chosen field, as evidenced in the dissertation. Students ordinarily complete the requirements for the Ph.D. degree between four and seven years from the date of matriculation in the program.