Molecular Biophysics Degree Plan

First year DBS students take 12 credit hours in fall and spring, and 6 credit hours in the summer semesters. In subsequent years they are enrolled in 9 credit hours in fall and spring, and 6 credit hours in the summer. Typically, didactic coursework is completed in the first year. In subsequent years, students are enrolled in dissertation research and a combined work-in-progress seminar (WIP)/journal club totaling full-time enrollment equivalency, and they are encouraged to take additional elective courses that expand their skills in specific areas and/or broaden their knowledge on Molecular Biophysics. Advancement of the student to Ph.D. candidacy is dependent upon successful completion of all mandatory coursework and the qualifying examination, which takes place in the second year.

Year	Term	Half/ Full	Title	Credit Hour	Total Credit Hrs/Term
First Year	Fall	1st Half	Core Curriculum - Genes	2	
			Core Curriculum - Proteins	2	
		2nd Half	Macromolecules I: Structural Foundations	2	
			Elective Coursework*	2	
		Full	Professionalism, Responsible Conduct of Research, and Ethics I	1	
		Full	Laboratory Rotations	3	Semester Total: 12
	Spring	1st Half	Macromolecules II: Energetic Foundations	1.5	
			Advanced Elective Coursework*	1.5	
		2nd Half	Advanced Elective Coursework**	1.5	
			Advanced Elective Coursework**	1.5	
		Full	Introduction to Biostatistics and Bioinformatics	2	
		Full	Professionalism, Responsible Conduct of Research, and Ethics II	1	
		Full	Laboratory Rotations	3	Semester Total: 12
	Summer		Research	6	Semester Total: 6
Second Year	Fall	Full	Research	8	
			Work-In-Progress (WIP) Seminar	1	Semester Total: 9
	Spring	Full	Research	8	
			Work-In-Progress (WIP) Seminar	1	Semester Total: 9
	Summer		Dissertation Research	6	Semester Total: 6
Third Year	Fall	Full	Dissertation Research	8	
			Work-In-Progress (WIP) Seminar	1	Semester Total: 9
	Spring	Full	Dissertation Research	8	
			Work-In-Progress (WIP) Seminar	1	Semester Total: 9
	Summer		Dissertation Research	6	Semester Total: 6
Fourth Year & Beyond	Fall	Full	Dissertation Research	8	
			Work-In-Progress (WIP) Seminar	1	Semester Total: 9
	Spring	Full	Dissertation Research	8	
			Work-In-Progress (WIP) Seminar	1	Semester Total: 9
	Summer		Dissertation Research	6	Semester Total: 6
Minimum Credit Hours for PhD					102

*(*) Students are required to complete a total of 6.5 credit hours of elective and advanced elective coursework with specific requirements for 3.0 of the credit hours that are outlined below. The remaining can be chosen from any course within the Division of Basic Science, although students are strongly encouraged to take the Core Curriculum - Cells course in the second half of the fall.

* Elective Coursework	Credit Hour	Term Offered	
*Core Curriculum - Cells	2	Fall	2nd half
Logic and Persuasion in Scientific Communication	1.5	Fall	2nd half
Mathematical Foundations of Quantitative Biology[1]	2	Fall	2nd half

**Advanced Elective Coursework must choose 2 of the following:	Credit Hour	Term Offered	
Modern Methods in Structural Biology	1.5	Spring	1st half
Quantitative Biology[1]	1.5	Spring	2nd half
Using Light in Biology	1.5	Spring	2nd half

Additional Advanced Elective Courses	Credit Hour	Term Offered	
Experimental Biophysics[2]	1.5	Fall	1st half
Advanced NMR Spectroscopy[2]	1.5	Fall	1st half
Practical X-Ray Crystallography[2]	1.5	Fall	2nd half

[1] Students are strongly encouraged to complete Mathematical Foundations of Quantitative Biology (Fall, 2nd half, 2.0 credit hours) prior to taking Quantitative Biology.

[2]Requires a prerequisite of Modern Methods in Structural Biology

For additional listings of elective and advanced elective courses available, see each program's course descriptions webpage.