

Course Requirement Checklist

PhD in Chemical, Physical, & Structural Biology

Students Starting Academic Year: **2024-2025**

Foundations Courses (10 credits):				
	GS-GS-6600	Foundations A: Molecules to Systems	6	
	GS-GS-6400	Foundations B: Biostatistics	4	
Program Core Course (3 credits):				
	GS-CP-6301	Molecular Biophysics 1	3	
Didactic Elective Courses (at least 9 credits):				
Responsible Conduct of Research Courses (4 credits):				
	GS-GS-5101	Responsible Conduct of Research 1	1	
	GS-GS-5102	Responsible Conduct of Research 2	1	
	GS-GS-5103	Responsible Conduct of Research 3	1	
	GS-GS-5104	Responsible Conduct of Research 4	1	
Professional Development Courses (9 credits):				
	GS-CP-5101	Scientific Thinking 1: Research Principles & Practices	1	
	GS-CP-6202	Scientific Thinking 2: Critical Literature Analysis	2	
	GS-CP-6306	Scientific Thinking 3: Writing & Defending Proposals I	3	
	GS-CP-6307	Scientific Thinking 4: Writing & Defending Proposals II	3	
Seminar/Journal Literature Courses:				
	GS-CP-5100	Student Research Seminar	1	
<i>Required in terms 1-4 every year from matriculation through attainment of Permission-To-Write.</i>				
Research Hours:				
In each term, students enroll in the number of credits [beyond other coursework] needed to be enrolled full-time (minimum 3 per term)				
	GS-CP-5030	Research Rotation	Var.	
<i>Taken each term when a mentor is not appointed (minimum 3 terms)</i>				
	GS-CP-5040	Special Projects	Var.	
<i>Taken each term after a mentor is appointed, and before candidacy is achieved.</i>				
	GS-CP-5050	Dissertation	Var.	
<i>Taken each term after a mentor is appointed, and after candidacy is achieved.</i>				

Graduate Degree Plan

PhD in Chemical, Physical, & Structural Biology

Students Starting Academic Year: **2024-2025**

General Degree Requirements:				
<ul style="list-style-type: none"> • Completion of at least 180 term hours • At least 30 of those term hours must be in Didactic courses • Completion of at least three terms of Research Rotation before appointing a major advisor • Students must maintain satisfactory academic progress as detailed in the Student Handbook 				
Year One Requirements:				
Term 1:	GS-GS-6600	Foundations A: Molecules to Systems	3 (Didactic) <i>(two-term course)</i>	Total to Date
	GS-GS-6400	Foundations B: Biostatistics	2 (Didactic) <i>(two-term course)</i>	
	GS-GS-5101	Responsible Conduct of Research 1	1	
	GS-CP-6304	Molecular Biophysics 1	3 (Didactic)	
	GS-CP-5101	Scientific Thinking 1: Research Principles & Practices	1	
	GS-CP-5100	Student Research Seminar	1	
	GS-CP-5030	Research Rotation	3	
	Total:			
Term 2:	GS-GS-6600	Foundations A: Molecules to Systems	3 (Didactic) <i>(two-term course)</i>	Total to Date
	GS-GS-6400	Foundations B: Biostatistics	2 (Didactic) <i>(two-term course)</i>	
	GS-CP-6202	Scientific Thinking 2: Critical Literature Analysis	2 (Didactic)	
	GS-CP-5100	Student Research Seminar	1	
		Research Rotation/Elective Courses	4	
	Total:			
Term 3:	GS-CP-6306	Scientific Thinking 3: Writing & Defending Proposals I	3 (Didactic)	Total to Date
	GS-CP-5100	Student Research Seminar	1	
		Research Rotation/Elective Courses	8	
	Total:			
Term 4:	GS-CP-6307	Scientific Thinking 4: Writing & Defending Proposals II	3 (Didactic)	Total to Date
	GS-CP-5100	Student Research Seminar	1	
		Research Hours/Elective Courses	8	
	Total:			
Term 5:		Research Hours/Elective Courses	12	Total to Date
	Total:			
Year Two Requirements:				

Term 1:	GS-CP-5100	Student Research Seminar	1	Total to Date 74 (21)
		Research Hours/Elective Courses	11	
	Total:		12	
Term 2:	GS-GS-5102	Responsible Conduct of Research 2	1	Total to Date 86 (21)
	GS-CP-5100	Student Research Seminar	1	
		Research Hours/Elective Courses	10	
	Total:		12	
Term 3:	GS-CP-5100	Student Research Seminar	1	Total to Date 98 (21)
		Research Hours/Elective Courses	11	
	Total:		12	

Student's Thesis Advisory Committee must be appointed by the end of Term 3 in the student's second year of enrollment.

Term 4:	GS-CP-5100	Student Research Seminar	1	Total to Date 110 (21)
		Research Hours/Elective Courses	11	
	Total:		12	
Term 5:		Research Hours/Elective Courses	12	Total to Date 122 (21)
			12	

Nine additional didactic hours are required for a total of thirty (30)

Qualifying Exam Requirement:

- Must be taken by the end of the second year of enrollment
- Student must complete all prerequisite activities defined by their program before taking the exam

Course Requirements beyond Year Two:

Year 3, Term 3:	GS-GS-5103	Responsible Conduct of Research 3	1
Year 4, Term 3:	GS-GS-5104	Responsible Conduct of Research 4	1

Recurring requirements through Graduation:

Terms 1-4:	GS-CP-5100	Student Research Seminar	As required*
Terms 1-5:	GS-CP-5050	Dissertation	As required*

**Students shall enroll in the number of credits of Dissertation needed to be enrolled full-time (12 credits) each term through Graduation.*

Research Course Work:

GS-CP-5010	Readings
GS-CP-5030	Research Rotation
GS-CP-5040	Special Projects
GS-CP-5050	Dissertation

Suggested Electives*

Chemical Biology/Pharmacology Emphasis

GS-CP-6205	Chemical Biology	2
GS-CP-6206	Drug Discovery: Bench to Bedside	2
GS-CP-6208	Pharmacology Concepts in Drug Discovery & Development	2

Suggested Electives*

Structural Biology/Biophysics Emphasis

GS-CP-6305	Molecular Biophysics 2	3
GS-CP-6301	Advanced X-ray Crystallography	3
GS-CP-6207	Electron Cryomicroscopy	2

**Students may select electives from open course options in all graduate programs. Courses may be viewed in the [Graduate School Bulletin](#)*