

Course Requirement Checklist PhD in Cancer & Cell 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 Courses (7 credits):				
	GS-CC-6208	Cellular Signaling	2	
	GS-CC-6211	Gene Regulation	2	
	GS-CC-6302	Molecular Carcinogenesis	3	
Didactic Elective Courses (at least 13 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 (8 credits):				
	GS-CC-5101	Reading & Evaluating Scientific Literature	1	
	GS-CC-5301	NRSA Grant Writing & Project Development 1	3	
	GS-CC-5302	NRSA Grant Writing & Project Development 2	3	
	GS-GS-5105	Scientific Writing	1	
Seminar/Journal Literature Course:				
	GS-CC-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-CC-5030	Research Rotation	Var.	
<i>Taken each term when a mentor is not appointed (minimum 3 terms)</i>				
	GS-CC-5040	Special Projects	Var.	
<i>Taken each term after a mentor is appointed, and before candidacy is achieved.</i>				
	GS-CC-5050	Dissertation	Var.	
<i>Taken each term after a mentor is appointed, and after candidacy is achieved.</i>				

Graduate Degree Plan

PhD in Cancer & Cell 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-CC-5101	Reading & Evaluating Scientific Literature	1	
	GS-CC-5100	Student Research Seminar	1	
		Research Rotation/Elective Courses	4	
	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-CC-5100	Student Research Seminar	1	
		Research Rotation/Elective Courses	6	
	Total:			
Term 3:	GS-CC-6208	Cellular Signaling	2 (Didactic)	Total to Date
	GS-CC-6211	Gene Regulation	2 (Didactic)	
	GS-GS-5105	Scientific Writing	1	
	GS-CC-5100	Student Research Seminar	1	
	Total:			
Term 4:	GS-CC-6302	Molecular Carcinogenesis	3 (Didactic)	Total to Date
	GS-CC-5301	NRSA Grant Writing & Project Development 1	3	
	GS-CC-5100	Student Research Seminar	1	
	Total			
Term 5:		Research Hours/Elective Courses	12	Total to Date:
	Total:			12
Year Two Requirements:				
Term 1:	GS-CC-5302	NRSA Grant Writing & Project Development 2	3	Total to Date
	GS-CC-5100	Student Research Seminar	1	
		Research Hours/Elective Courses	8	
	Total:			
<i>Student's Thesis Advisory Committee must be appointed by the end of Term 1 in the student's second year of enrollment.</i>				

Term 2:	GS-GS-5102	Responsible Conduct of Research 2	1	Total to Date 84 (17)
	GS-CC-5100	Student Research Seminar	1	
		Research Hours/Elective Courses	10	
	Total:		12	
Term 3:	GS-CC-5100	Student Research Seminar	1	Total to Date 96 (17)
		Research Hours/Elective Courses	11	
	Total:		12	
Term 4:	GS-CC-5100	Student Research Seminar	1	Total to Date 108 (17)
		Research Hours/Elective Courses	11	
	Total:		12	
Term 5:		Research Hours/Elective Courses	12	Total to Date 120 (17)
			12	

Thirteen 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 until Graduation:

Terms 1-4:	GS-CC-5100	Student Research Seminar	As required
Terms 1-5:	GS-CC-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-CC-5010	Readings
GS-CC-5030	Research Rotation
GS-CC-5040	Special Projects
GS-CC-5050	Dissertation

Additional Cancer & Cell Biology program courses offered*:

GS-CC-6101	Cancer	GS-CC-6207	Ethics & Regulatory Prep for Research with Animal Models
GS-CC-6103	Biology of Aging	GS-CC-6210	Tumor, Technology, Therapy
GS-CC-6201	Translational Cancer Biology	GS-CC-6303	Reproductive Biology
GS-CC-6202	Explorative Data Analysis	GS-CC-6304	Biology & Mechanisms of Age-Related Disease
GS-CC-6203	Integrated Microscopy	GS-CC-6401	Technologies for Cancer Drug Discovery & Development (two-term course)
GS-CC-6204	Regulation of Energy Homeostasis		
GS-CC-6205	Translational Breast Cancer Research		
GS-CC-6206	Cell Death in Development & Disease		

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