Course Requirement Checklist
PhD in Neuroscience

Baylor College of Medicine
GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

Students Starting Academic Year: 2024-2025

Foundations Course (4 credits):				
	GS-GS-6400	Foundations B: Biostatistics	4	
Program Core Courses (22 credits):				
	GS-NE-5111	Neuroscience Lab 1	1	
	GS-NE-5112	Neuroscience Lab 2	1	
	GS-NE-6101	Core Concepts in Computational Neuroscience	1	
	GS-NE-6201	Analyses of Neuronal Function	2	
	GS-NE-6202	Anatomy of the Nervous System	2	
	GS-NE-6204	Neurobiology of Disease	2	
	GS-NE-6206	Genetics: Principles, Applications & Tools for Neuroscience	2	
	GS-NE-6207	Electrophysiology of Neurons	2	
	GS-NE-6301	Neural Systems 1	3	
	GS-NE-6302	Neural Systems 2	3	
	GS-NE-6304	Brain Cell Biology & Development	3	
Didactic Elective Courses (at least 6 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 Course (choose *at least* one from list – min. 1 credit):				
	GS-GS-5105	Scientific Writing		
	GS-GS-5112	Powerful Presentations		
	GS-NE-5101	Preparing for Your Neuroscience Qualifying Exam		
Seminar/Journal Literature Courses:				
	GS-NE-5100	Student Journal Club in Neuroscience	1	*6 total cr.*
		Required in terms 2-4 during the first two years of study.		
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-NE-5030	Research Rotation	Var.	
		Taken each term when a mentor is not appointed (minimum 3 terms)		
	GS-NE-5040	Special Projects	Var.	
		Taken each term after a mentor is appointed, and before candidacy is achieved.		
	GS-NE-5050	Dissertation	Var.	
		Taken each term after a mentor is appointed, and after candidacy is achieved.		

Graduate Degree Plan
PhD in Neuroscience

Baylor College of Medicine

GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

Students Starting Academic Year: 2024-2025

General Degree Requirements:

- 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-5101	Responsible Conduct of Research 1	1	
	GS-NE-5111	Neuroscience Lab 1	1	
	GS-NE-6207	Electrophysiology of Neurons	2 (Didactic)	
	GS-NE-6304	Brain Cell Biology & Development	3 (Didactic)	
		Research Rotation/Elective Courses	5	Total to Date
		Total:	12 (5)	12 (5)
Term 2:	GS-NE-5112	Neuroscience Lab 2	1	
	GS-NE-6201	Analyses of Neuronal Function	2 (Didactic)	
	GS-NE-6202	Anatomy of the Nervous System	2 (Didactic)	
	GS-NE-5100	Seminar Journal Club in Neuroscience	1	
		Research Rotation/Elective Courses	6	Total to Date
		Total:	12 (4)	24 (9)
Term 3:	GS-NE-6206	Genetics: Principles, Applications & Tools for Neuroscience	2 (Didactic)	
	GS-NE-6301	Neural Systems 1	3 (Didactic)	
	GS-NE-5100	Seminar Journal Club in Neuroscience	1	
		Research Rotation/Elective Courses	6	Total to Date
		Total:	12 (5)	36 (14)
Term 4:	GS-NE-6101	Core Concepts in Computational Neuroscience	1 (Didactic)	
	GS-NE-6204	Neurobiology of Disease	2 (Didactic)	
	GS-NE-6302	Neural Systems 2	3 (Didactic)	
	GS-NE-5100	Seminar Journal Club in Neuroscience	1	
		Research Hours/Elective Courses	5	Total to Date
		Total:	12 (6)	48 (20)
Term 5:		Research Hours/Elective Courses	12	Total to Date
		Total:	12	60 (20)

Year Two Requirements:

Term 1:	GS-GS-6400	Foundations B: Biostatistics	2 (Didactic) *(two-term course)*	
		Research Hours/Elective Courses	10	Total to Date
		Total:	12 (2)	72 (22)

2nd-Year Course Requirement:

Students must enroll in at least one of the following:

- GS-NE-5101 Preparing for your Neuroscience Qualifying Exam (Term 2)
- GS-GS-5112 Powerful Presentations (Term 2)
- GS-GS-5105 Scientific Writing (Term 3)

Term 2:	GS-GS-6400	Foundations B: Biostatistics	2 (Didactic) *(two-term course)*	
	GS-GS-5102	Responsible Conduct of Research 2	1	
	GS-NE-5100	Seminar Journal Club in Neuroscience	1	
		Research Hours/Elective Courses	7	Total to Date
		Total:	12 (2)	84 (24)
Term 3:	GS-NE-5100	Seminar Journal Club in Neuroscience	1	
		Research Hours/Elective Courses	11	Total to Date
		Total:	12	96 (24)
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-NE-5100	Seminar Journal Club in Neuroscience	1	
		Research Hours/Elective Courses	11	Total to Date
		Total:	12	108 (24)
Term 5:		Research Hours/Elective Courses	12	Total to Date
			12	120 (24)
Six 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 4:	GS-GS-5104	Responsible Conduct of Research 4	1

Recurring requirements through Graduation:

Terms 1-5:	GS-NE-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-NE-5010	Readings
GS-NE-5030	Research Rotation
GS-NE-5040	Special Projects
GS-NE-5050	Dissertation

Additional Neuroscience program courses offered*:

GS-NE-6208	Concepts of Learning & Memory
GS-NE-6303	Electrical Signaling in the Brain

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