

# Graduate Degree Plan - Checklist

## PhD in Immunology & Microbiology

Students Starting Academic Year: 2023-2024

<b>Foundations Courses (10 credits):</b>				
	GS-GS-6600	Foundations A: Molecules to Systems	6	
	GS-GS-6400	Foundations B: Biostatistics	4	
<b>Program Core Courses (11 credits):</b>				
	GS-IY-6401	Concepts in Host Immune System-Microbe Interactions	4	
	GS-IY-6305	Experimental Immunology & Microbiology	3	
	GS-IY-6403	Effective Grant Writing	4	
<b>Didactic Elective Courses (at least 9 credits):</b>				
<b>Responsible Conduct of Research Courses (4 credits):</b>				
	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	
<b>Professional Development Courses (8 credits):</b>				
	GS-GS-5105	Scientific Writing	1	
	GS-GS-5111	Strategies for Success in Graduate School	1	
	GS-GS-5112	Powerful Presentations	1	
	GS-GS-5113	Designing & Managing Successful Scientific Projects	1	
<b>Seminar/Literature Courses:</b>				
	GS-IY-5100	Student Research Seminar	1	
<i>Required in terms 2-4 during the first year, and terms 1-4 from year two through attainment of Permission-To-Write.</i>				
	GS-IY-5105	Seminars in I & M Research	1	
<i>Required in terms 1-4 every year from matriculation through attainment of Permission-To-Write.</i>				
	GS-IY-5110	Literature Review in I & M	1	
<i>Required in terms 1-4 every year from matriculation through attainment of Permission-To-Write.</i>				
<b>Research Hours:</b>				
In each term, students enroll in the number of credits [beyond other coursework] needed to be enrolled full-time (minimum 3)				
	GS-IY-5030	Research Rotation	Var.	
<i>Taken each term before a mentor is appointed (minimum 3 terms)</i>				
	GS-IY-5040	Special Projects	Var.	
<i>Taken each term after a mentor is appointed, and before candidacy</i>				
	GS-IY-5050	Dissertation	Var.	
<i>Taken each term after candidacy is achieved.</i>				

# Graduate Degree Plan - Schedule

## PhD in Immunology & Microbiology

Students Starting Academic Year: **2023-2024**

### 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-6600	Foundations A: Molecules to Systems	3 (Didactic) <i>(two-term course)</i>	Total to Date  14 (7)
	GS-GS-6400	Foundations B: Biostatistics	2 (Didactic) <i>(two-term course)</i>	
	GS-GS-5101	Responsible Conduct of Research 1	1	
	GS-GS-5111	Strategies for Success in Graduate School	1	
	GS-IY-6401	Concepts in Host Immune System-Microbe Interactions	2 (Didactic) <i>(two-term course)</i>	
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
	GS-IY-5030	Research Rotation	3	
Total:			14 (7)	
Term 2:	GS-GS-6600	Foundations A: Molecules to Systems	3 (Didactic) <i>(two-term course)</i>	Total to Date  27 (14)
	GS-GS-6400	Foundations B: Biostatistics	2 (Didactic) <i>(two-term course)</i>	
	GS-IY-6401	Concepts in Host Immune System-Microbe Interactions	2 (Didactic) <i>(two-term course)</i>	
	GS-IY-5100	Student Research Seminar	1	
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
	GS-IY-5030	Research Rotation	3	
Total:			13 (7)	
Term 3:	GS-IY-6305	Experimental Immunology & Microbiology	3 (Didactic)	Total to Date  39 (17)
	GS-GS-5105	Scientific Writing	1	
	GS-IY-5100	Student Research Seminar	1	
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
		Research Rotation/Elective Courses	5	
Total:			12 (3)	
Term 4:	GS-IY-6403	Effective Grant Writing	4 (Didactic)	Total to Date  51 (21)
	GS-IY-5100	Student Research Seminar	1	
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
		Research Hours/Elective Courses	5	
Total:			12 (4)	
Term 5		Research Hours/Elective Courses	12	Total to Date
Total:			12	63 (21)

## Year Two Requirements:

Term 1:	GS-GS-5113	Designing & Managing Successful Scientific Projects	1	Total to Date 75 (21)
	GS-IY-5100	Student Research Seminar	1	
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
		Research Hours/Elective Courses	9	
			Total:	12
Term 2:	GS-GS-5102	Responsible Conduct of Research 2	1	Total to Date 87 (21)
	GS-GS-5112	Powerful Presentations	1	
	GS-IY-5100	Student Research Seminar	1	
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
		Research Hours/Elective Courses	7	
			Total:	12
Term 3:	GS-IY-5100	Student Research Seminar	1	Total to Date 99 (21)
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
		Research Hours/Elective Courses	9	
<i>Student's Thesis Advisory Committee must be appointed by the end of Term 3 in the student's second year of enrollment.</i>				
Term 4:	GS-IY-5100	Student Research Seminar	1	Total to Date 111 (21)
	GS-IY-5105	Seminars in I & M Research	1	
	GS-IY-5110	Literature Review in I & M	1	
		Research Hours/Elective Courses	9	
Term 5:		Research Hours/Elective Courses	12	Total to Date
				Total:
<i>Nine additional didactic hours are required for a total of thirty (30)</i>				

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

### Recurring Requirements until Graduation:

Terms 2-4:	GS-IY-5100	Student Research Seminar	As required
Terms 1-4:	GS-IY-5105	Seminars in I & M Research	As required
Terms 1-5:	GS-IY-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-IY-5010 Readings	GS-IY-5040 Special Projects
GS-IY-5030 Research Rotation	GS-IY-5050 Dissertation

### Additional Immunology & Microbiology program courses offered\*:

GS-IY-6200 Principles of Immunology	GS-IY-6205 Microbiome Methodology & Data Analysis
GS-IY-6201 Cells, Tissues & Organs	GS-IY-6206 Bacterial Pathogenesis
GS-IY-6202 The Microbiome	GS-IY-6301 Immunology
GS-IY-6204 Vaccinology	GS-IY-6304 Clinical Aspects of Immunology

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