

Genome and Systems Biology Degree Program (Ph.D.)

Curriculum Number	Area	Subjects	taken by (Recommended Year of Study)	Credits			Module
					Required	Elective	Semester
Ethics7001	Compulsory	Academic Ethics	1,2	0	0		Spring
GenSys7004	Compulsory	Dissertation (Ph.D.)	2	0	0		Spring or Fall
GenSys7002	Compulsory	Research Training	1,2	1	2 or more		Spring and Fall
GenSys8004	Compulsory	SEMINAR (Ph.D.)	2	1	2		Spring and Fall
GenSys5004	Compulsory	Genome and Systems Biology	1	4	4		Fall
GenSys5005	Compulsory	Topics and Seminars in Genome and Systems Biology	1	2	4		Spring and Fall
GenSys8001	Compulsory	Lab Rotations	1	1	2		Spring and Fall
Total					14		
CLS5001	Elective	Graduate Student Orientation	1,2	1		4 or more	Fall
CSIE5122	Elective	Introduction to Biomedical Informatics	1,2	3			Fall
GenSys5010	Elective	Programming (Python)	1,2	2			Fall
PTMP8025	Elective	Stem Cell Biology	1,2	2			Fall
GenSys5019	Elective	Professional Developments for a Graduate Student	1,2	2			Spring
Biot7027	Elective	Advanced Biochip Technology and Data Analysis	1,2	3			Spring
PPM5082	Elective	Advanced Microbiology	1,2	3			Spring



EEB5095	Elective	Diversity and Evolution of Eukaryotes	1,2	2		Fall
Prog5170	Elective	Molecular and Cell Biology	1,2	2		Fall
EEB5045	Elective	Population Genetics	1,2	3		Fall
LS5093	Elective	Single-cell Systems Biology	1,2	1		Fall

A. Duration

Students of the Ph.D. Programs are expected to fulfill the requirements in 7 years.

B. Advisor(s)

The advisor or one of the co-advisors of the Doctor of Philosophy (Ph.D.) thesis must be a member of the faculty in the Genome and Systems Biology degree program or an adjunct faculty affiliated with the Academia Sinica. For students of the Ph. D. program, all students must complete the core curriculum, the laboratory rotations requirements by the end of year 1. Before the beginning of year 2, they must select a thesis advisor.

***Note:** one-semester wet lab and the other semester dry lab.

C. Graduating Credits:

(1) The minimum requirement for a Ph.D. degree includes 18 graduate credits and a dissertation.
(Course Required Subject Matter (14) + Course Elective Subject Matter (at least 4 credits) = at least 18 credits)

(2) Students must participate in at least one College of Life Science poster competition before graduation.

(3) This elective list is for informational purposes only. Not all courses are offered every year.

Although the following courses are listed under other departments, the course instructor is appointed jointly by the GSB faculty. Most of these courses appear in Genome and Systems Biology specialty areas.

(4) Students transfer from the GSB Master program are required to take at least 30 credits to graduate, of which 18 are from the compulsory courses, and 12 from the elective courses.

D. Credit Transfer and Exemption

NTU students who had taken graduate courses similar to any of the elective courses before entering the Ph.D. Programs can apply for credit transfer and exemption with a maximum of 12 credits. Students are additionally required to upload a course syllabus and a transcript of their previous studies.

***Note:** The results of the application for credit transfer and course exemption will be available only with the approval of the GSB Course Committee.

E. Qualifying Exam

(1) Ph.D. Students must meet Department and University requirements.

(2) Before the end of the 2nd year of the program. Students must apply for a qualifying examination, and the application should be due on October 31th (first semester) or April 30th (second semester).

(3) Pass the Department's qualifying examination before the end of the 3rd year of the program.

(4) Pass the Qualifying Exam, form a dissertation reading committee.

(5) Those students who fail the oral examination must schedule a second examination before the end of the 3rd year of the program. Students will not be allowed to continue the Doctor of Philosophy program if they fail the second examination.

(6) Students in the Ph.D. program wishing to advance to candidacy must first pass the GSB Qualifying Examination, and complete the courses required for 18 graduate credits.

(7) Any questions about the examinations are administered by the GSB student advisory committee.

F. Thesis Defense

(1) Application for thesis defense is due on October 31st (first semester) or April 30th (second semester). Students must send a copy of the application form, transcripts, a grade evaluation form, and names of 5-9 thesis defense committee members to the GSB office.

(2) The defense must be held before the end of the semester. Students must notify the GSB office as soon as the date of the defense is determined to allow time for the preparation for the venue of defense and invitation letters sent to members of the thesis defense committee. Students must pick up relevant materials for the defense from the GSB office at least 1- 2 weeks before the defense.

(3) For acceptable reasons, students may withdraw the application for a thesis defense. Forfeiting a thesis defense without an official withdrawal before the end of the semester is equivalent to failing the thesis defense. Students may have two chances to pass the defense.

(4) January 31st (first semester) or July 31st (second semester) for submitting the Final Defense Approval Form to the GSB office. Failing to do so will result in a delay in graduation. Students must be enrolled for the quarter in which the oral examination is given.

(5) We recommend you confirm with your committee members 1-2 weeks before the event takes place. To be sure the schedule has it on their calendars.

***Note:** Final versions of all GSB thesis must be approved by the NTU Library and conform to the specification.

G. If there is anything we can support, please reach out to your advisor, the relevant department, International Student Service Center Office of International Affairs. Stay connected with your lab mates and classmates.

H. The above-listed requirements are in effect immediately after the approval of the GSB faculty. Any questions about the interpretation of this requirement or issues not covered by its provisions shall be resolved by the GSB faculty.

Affiliation: Genome and Systems Biology Degree Program, Academia Sinica and National Taiwan University

