

Genome Science and Technology Graduate Program Requirements

Guidelines for Students and Mentors/Supervisors

1. Admissions

Acceptance into the program is dependent on:

- a) Meeting the GSAT Program requirement of holding a B.Sc. or equivalent degree, with a major in a biological discipline (such as biology, genetics, microbiology, molecular biology, or medicine) or a quantitative science (such as computer science, mathematics, physics, engineering, or statistics), along with significant experience in one of the other fields.
- b) Meeting the general entrance requirements of the Faculty of Graduate and Postdoctoral Studies (G+PS) at UBC.
- c) Obtaining a letter of acceptance from the GSAT Program confirming full funding through a program or supervisor.
- d) Receiving a letter from G+PS at UBC confirming acceptance into the University.

Students are required to demonstrate proficiency in verbal and written English. Applicants required by G+PS to complete an English test must achieve a minimum TOEFL score of 100 (internet-based) or an IELTS score of 7.0, taken within 24 months of the application submission date.

Students who already hold an M.Sc. in a discipline not related to genomics or a relevant physical science will be admitted as M.Sc. candidates and must fulfill the program's course requirements. Transfer from the M.Sc. to the Ph.D. program is possible if the student demonstrates strong progress in laboratory rotations and maintains an average of 80% or higher in graduate courses.

Students will receive a minimum stipend of \$30,000 per year (as of September 2025) for up to five years, provided by the program and/or GSAT faculty member. Students are required to apply for applicable scholarships. If external scholarship funding is less than this amount, the program will contribute the balance to ensure a minimum of \$30,000 per year. Continued enrollment in the program depends on maintaining good academic standing.

Application Documents for online applications only (no paper applications accepted):

- Official transcripts from all post-secondary institutions attended.
- Official TOEFL or equivalent score (for applicants whose first language is not English).
- Three strongly supportive letters of reference (either uploaded online or sent directly from the referee in a sealed envelope with the referee's signature across the seal to the GSAT Program address).
- CV.

Additional materials or fees may be required once a student is accepted into the GSAT Program and applies for admission to G+PS.

2. Committees

(a) Candidate's Acceptance Committee

The initial Acceptance Committee consists of assigned GSAT faculty members. The committee provides guidance regarding coursework, research rotations, and other academic or career-related issues, and evaluates student progress. Note that the initial committee will not necessarily be the final committee for the student's M.Sc. or Ph.D. thesis. The thesis supervisor will be identified after the third research rotation. At that time, additional committee members must be chosen to reflect the needs of the thesis topic.

Initial Meeting:

The first meeting takes place during the first week of classes. Students are introduced to the GSAT program and the expectations of graduate study. During this meeting, the student's background, course selections, and academic goals will be reviewed to ensure suitability. Students are encouraged to raise any questions about the program or their goals.

Meeting to Declare Final Supervisor and Academic Path:

All students must declare their final thesis supervisor no later than two weeks after completing their third rotation. The third rotation should be chosen carefully, as this research may or may not continue into the student's thesis. Students intending to transfer from the M.Sc. to the Ph.D. program must hold a committee meeting to discuss their suitability for transfer. Transfers must occur at the beginning of an academic term and before 24 months have elapsed in the M.Sc. program. Students must provide each committee member with a summary report of their progress at least one week before the meeting. All transfer-related paperwork must be completed and signed no later than two weeks before the start of the desired term (September, January, or May). The signed committee report and transfer documentation must be submitted to the program coordinator.

(b) Candidate's Thesis Committee

- i) **M.Sc. Thesis:** The committee consists of the supervisor and two members, at least one of whom must be a GSAT faculty member.
- ii) **Ph.D. Thesis:** The committee consists of the supervisor and three additional members, at least one of whom must be a GSAT faculty member.

Initial Meeting with Thesis Supervisor and Committee:

The first Thesis Supervisory Committee meeting will approve the thesis proposal following the decision regarding the student's academic path. If the student plans to transfer to the Ph.D. program, a date

should be set for the Ph.D. qualifying examination. This exam should take place ideally within 24 months of program start, but no later than 36 months.

Subsequent Meetings:

At least one committee meeting must be held each year to review progress. Students must provide a written progress summary and an updated CV at least one week before the meeting. Additional meetings may be called as needed. A signed report of each committee meeting and the student's progress report must be submitted to the program coordinator.

Committee meetings are formal. Students should prepare a brief (15–20 minute) presentation emphasizing experimental design, data interpretation, and future plans. Committee members may suggest changes to priorities, timelines, or research direction.

It is the student's responsibility to schedule committee meetings within program timelines and to ensure all required documentation is submitted to the program coordinator.

Records:

The progress report must be completed by the supervisor at the time of the meeting and signed. A copy will be kept in the student's central file by the program coordinator.

Supervision:

The student and Thesis Supervisory Committee share responsibility for ensuring that the structure of the program meets the requirements of both G+PS and GSAT. However, the final responsibility rests with the student. Students may change supervisors or committee members after consultation with those involved. In case of disputes, students are encouraged to contact the GSAT Graduate Student Academic Advisor or Program Coordinator.

Faculty members who wish to supervise a GSAT student must sign a waiver indicating their commitment to provide minimum financial support for students without external funding.

3. Course Requirements

Students must have appropriate academic backgrounds before admission. Those lacking sufficient preparation in biology or quantitative sciences must address these gaps prior to applying. Students admitted to the program may be required by their Acceptance Committee to take specific courses to strengthen their background.

M.Sc. Students:

Must complete the mandatory seminar course (GSAT 502) and three graduate-level electives, as well as participate in three four-week research rotations in affiliated laboratories. Additional courses may be recommended by the Thesis Supervisory Committee.

Courses are normally completed in the first year, with mandatory courses prioritized. Students must complete 12 course credits and two professional development courses.

Ph.D. Students:

No required courses, unless recommended by the committee.

4. Qualifying Comprehensive Examination

- (a) *M.Sc.* – No qualifying exam is required.
- (b) *Ph.D.* – All Ph.D. candidates must pass an oral qualifying examination to advance to candidacy.

Purpose:

The exam assesses the student's understanding of their field and readiness for thesis research.

Note:

Students must hold a committee meeting at least one month before the exam and are advised to meet individually with examiners to discuss preparation.

Timing:

The exam must occur within 36 months of entering the program. Failure to pass will result in dismissal from the program.

5. Thesis Preparation

Students must consult the UBC G+PS website for *Instructions for the Preparation of Graduate Theses* and *The Final Oral Examination – Guide to Doctoral Candidates*.

Before writing, students must meet with their committee to review the proposed content for scientific adequacy and obtain formal approval. The supervisor must review the full draft before circulation. Committee members must be given at least four weeks to provide feedback. All revisions must be incorporated before the thesis is submitted for examination.

6. Thesis Examination Procedure

M.Sc. Defense:

- (a) Submit the final thesis to the supervisory committee for approval at least four weeks before the defense.
- (b) Secure a Chair for the defense who is not part of the supervisory committee (the Program Coordinator can provide a list of approved Chairs). Notify the Chair at least one month before the

exam date.

- (c) Notify the Program Coordinator of the examination details (committee members, date, time, location, and thesis title). Room bookings can be arranged through the home department or the Program Coordinator. Allow two weeks for arrangements.
- (d) Present an exit seminar at least two weeks before the defense. The seminar may be held in the home department or at the GSC and is open to the university community.
- (e) Upon successful completion, students must apply for graduation.

Ph.D. Defense:

Ph.D. candidates must follow the defense procedures and guidelines outlined by G+PS on its website.