

GRADUATE PROGRAM POLICY

CONCORDIA UNIVERSITY
DEPARTMENT OF PHYSICS
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1 Introduction

This document details the policies of the Graduate Program in Physics. The Graduate Program Committee (GPC) may authorize exceptions to this policy in exceptional cases by unanimous vote, but this is discouraged. Any changes to the policy must be approved by the GPC.

2 Admission to the graduate programs

2.1 Eligibility for admission

An applicant is deemed eligible for admission for a graduate program on the basis of having completed previous academic degrees in Physics or related disciplines (MSc or equivalent for admission into the PhD program; BSc or equivalent for admission into the MSc program).

The deadlines for receiving applications for admission in the Fall and Winter terms are April 15 and August 1, respectively. International applicants are encouraged to apply before March 15 and July 15, respectively, to allow for the sometimes lengthy processing of immigration paperwork.

2.2 Admission criteria

The criteria used to determine whether an applicant will be offered entry into a graduate program are:

1. Academic merit, as reflected from previous grades, the statement of purpose, letters of recommendation, and any other materials available in the application.
 1. For direct admission into the MSc program, the minimum required undergraduate cumulative grade point average (CGPA) is 3.0 out of 4.3 (a grade of B) or equivalent.
 2. For direct admission into the PhD program, the minimum required MSc CGPA is 3.0 out of 4.3 (a grade of B) or equivalent.
2. Availability of a faculty member (the supervisor) willing to take on the duties of supervising the applicant's program of study.
3. Availability of an appropriate financial support package with a minimum value of \$18,000 per year (including any available eligible external support). This must include enough support to cover the international tuition fees for international students.
4. English language proficiency, as evidenced by minimum scores in recognized tests (such as TOEFL and IELTS), or by documents supporting the applicant's attendance to program of study at an English-only institution. The up-to-date requirements for proof of English proficiency can

be found at <http://www.concordia.ca/admissions/graduate/language-proficiency.html>. In exceptional cases, it may be possible to waive this requirement with proper justification.

2.2.1 Non-standard admissions

Under special cases, students may be admitted even if they do not meet the admission criteria described above. All non-standard admissions must be approved by the GPC.

2.2.1.1 Direct admission from BSc to PhD

Applicants with a strong record may be admitted directly into the PhD program even if they only have a BSc degree. The prospective supervisor must justify, in writing, why such an admission is warranted.

2.2.1.2 Fast-track from MSc to PhD

MSc students that show strong performance may be transferred directly to the PhD program (“fast-tracked”) during their first year of studies. Fast-tracking is not recommended, as it may have adverse implications in terms of tuition fees (particularly for international students).

2.2.1.3 Low-GPA admissions

An applicant may be considered for admission into the MSc program, even if their GPA is below the 3.0 (or equivalent) requirement, if they satisfy all of the following conditions:

- a) A faculty member must sponsor the application and be willing to support the student. This includes writing a strong supporting reference letter for the applicant.
- b) The applicant has done research work for a duration of at least one term under the direct supervision of the faculty sponsor. PHYS 496, PHYS 497, externally or internally funded research internships, and Co-op work terms are some examples of the type of eligible work experience.
- c) The applicant must show an improvement in their grades towards the end of their degree, or other strong evidence that can be used to justify their admission to the School of Graduate Studies.

An applicant that satisfies these conditions, with a GPA between 2.7 and 2.99 can be approved by the GPC for direct admission into the MSc program.

An applicant that satisfies these conditions, with a GPA between 2.5 and 2.69 can be approved by the GPC for admission into a two- or three-term (at the discretion of the GPC) Qualifying Program (QP).

2.3 Full-time or part-time status

Students in the MSc or PhD programs are accepted as full- or part-time students at the time of admission. These students are considered to be full- or part-time according to their status at admission, regardless of any other factors. Their classification will change only if they submit a request to change their status. Supervisors are encouraged to discuss this issue with a student whose status does not match their current situation.

2.4 Supervisor funding

Supervisors are required to contribute a minimum research bursary of \$8,000/year in order to recruit a full time graduate student (an amount of \$10,000/year is recommended). This requirement does not apply to students with eligible external funding that covers their living expenses and tuition costs, and it may be waived by the GPC if alternative funds are available to cover this contribution. Part-time students may be recruited with no supervisor funding, but each case must be approved by the GPC.

A research bursary is more akin to a scholarship than a research contract, in the sense that it is an amount of money given to a student to help them support their course of study. The act of giving a research bursary to a student does not enter the student into an employment relationship, and, as such, cannot be used to impose on the student conditions resembling employment, for instance, a fixed amount of time of presence at the workplace, specific tasks not directly related to their thesis research, etc. If a supervisor would prefer the student to be in an employment relationship with the University, they should support the student via a research assistantship (subject to the rules of the TRAC collective agreement) which must abide by the same minimum amounts (in terms of funds received by the student, without counting benefits or other contributions) as a research bursary.

2.5 Conditional admissions

If an applicant has been approved for admission, but the file lacks official copies of documents (such as transcripts or recommendation letters), the applicant may be presented an admission offer conditional on receiving the missing documents. The admission letter must state a deadline for the department to receive the missing documents and satisfy the condition.

If an applicant has been approved for admission but their English language proficiency test scores fall within the range where the University requires supplemental English classes (see <http://www.concordia.ca/admissions/graduate/language-proficiency.html>), they can be offered an admission conditional on presenting satisfactory tests scores or on taking the required English classes. The admission letter must specify a deadline for these requirements to be satisfied and it must also indicate that the student is responsible for paying the full tuition fees associated with the English classes.

The GPC can decide to make offers with other types of conditions. These conditions must be clearly specified in the admission letter as well as a deadline for their completion.

If a student's admission condition is not satisfied after the specified deadline, the GPC, in consultation with the Admissions Office in the Faculty of Arts and Science, will make a decision about the actions to take.

It should be noted that offering conditional admission to international students can result in problems for the student, the supervisor, and the department. Given this, the policy recommends that conditional admissions be offered to international applicants only as a last resort. In this case, the supervisor must take into account the time commitments the students will have to meet in order to fulfill their admission conditions.

3 Responsibilities

Guidelines from the School of Graduate Studies for the supervision of MSc and PhD students can be found at <http://www.concordia.ca/content/dam/sgs/docs/handbooks/Masters-Supervisor-Guidelines.pdf> and <http://www.concordia.ca/content/dam/sgs/docs/handbooks/PhD-Supervisor-Guidelines.pdf>.

3.1 Supervisor responsibilities

Supervisors of graduate students are expected to:

- be the main point of contact for students regarding matters involving the University;
- evaluate their student's progress over the course of the graduate program;
- oversee the research undertakings of students by mentoring and directing them;

- arrange with students mutually compatible expectations in terms of their working relationship;
- establish an appropriate supervisory committee (SC);
- prepare, jointly with the student, a research plan and timetable for the program of study;
- provide timely comments on written material submitted by students;
- play an active role in seeking to ensure the availability of basic resources required for the research;
- discuss funding/support issues with the student;
- assist and encourage the wider professional development of the student;
- ensure that the research environment is safe, equitable, and free from harassment and discrimination;
- be generally available to the student;
- make appropriate arrangements for the supervision and support of students when they go on sabbatical leave or extended absence;
- make a good faith effort to listen to student issues and to find satisfactory solutions;
- discuss issues with the student, their SC, and the Graduate Program Director (GPD) in a timely fashion in the event of a conflict in the supervisor-student relationship;
- act in a professional manner in their relationship with the student;
- set up clear expectations in terms of authorship in publications;
- be attentive to the distinctive needs and challenges of students with care-giving responsibilities;
- schedule a yearly SC meeting.

Supervisors are encouraged to keep frequent contact with students under their supervision, with at least a regularly-scheduled weekly meeting, as well as to remind them of their responsibilities.

3.2 Student responsibilities

Students are expected to:

- inform themselves concerning regulations and standards as specified in the Graduate Calendar and relevant documents;
- maintain regular contact with the supervisor;

- prepare, jointly with the supervisor, a research plan and timetable for the program of study;
- inform the supervisor with a proper justification if they are not comfortable with the choice of member(s) for the SC;
- inform the supervisor of anything significant that may affect their academic progress or that of others;
- submit draft publication materials based on collaborative research to supervisors before submission for publication;
- maintain open communication with their supervisor, SC, and the GPD concerning any problem;
- seek advice from the supervisor about possible scholarship, workshops, and other professional development opportunities;
- keep the supervisor informed in advance of research collaborations, teaching assistantships, and research assistantships.

3.3 Problem resolution

A student's supervisor is the main point of contact of a student with the University. As such, if students encounter issues affecting their academic or research performance, they must first discuss them with their supervisor. Similarly, if a supervisor encounters issues with the academic or research performance of a student, they must first discuss these issues with the student. Both the student and the supervisor should discuss the issue with the student's SC, and an exceptional SC meeting may be called to try to solve the issues.

The GPD oversees graduate supervision in the Department. Issues that cannot be solved by discussion at the previous levels must be reported to the GPD.

Issues that cannot be solved at the GPD level (or if they involve a student supervised by the GPD) must be reported to the Department Chair.

4 Supervisory committee

Every graduate student in the Department must be assigned a SC. The role of the SC is to guide the

student towards successful completion of the program, providing a complementary perspective. The Department encourages academic interaction between students and their SC members beyond the required annual meeting.

4.1 Composition

The SC is composed of the supervisor(s) and two faculty members. At least one of these two faculty members must be from the Department. The supervisor may propose an additional member from outside of the University; this is subject to approval by the GPC.

4.2 Research plan

In order to set up clear expectations for the research progress, and to give the SC guidelines, the supervisor of every graduate student shall submit to the GPD a one-page research plan, prepared in consultation with the student before the end of the student's first semester in the program.

4.3 Annual supervisory committee meeting

During the first semester, the student should have a brief meeting with the SC, as an introduction and to discuss their general research plan. After that, at least once per year, every graduate student must have a meeting with their SC to assess their academic and research progress. For PhD students, the comprehensive examination may be considered as a meeting with their SC.

5 Academic requirements

All graduate students in the Department must satisfy the academic regulations stated in the most up-to-date University Graduate Calendar.

(<http://www.concordia.ca/academics/graduate/calendar/current/academic-regulations.html>)

In order to obtain their degree, graduate students in the Department must satisfy requirements in three different areas:

1. Coursework
2. Seminar presentations
3. Examinations

5.1 Coursework requirements

All coursework requirements are subject to the requirements stated in the current Graduate Calendar entry for the corresponding program.

<http://www.concordia.ca/academics/graduate/calendar/current/fasc/phys.html>

Course substitutions

The Graduate Calendar lists all the courses that graduate students can take for credit towards their coursework requirement. For a course outside of this list to be used to satisfy this requirement, the supervisor must justify, in writing, how this course can substitute a course in the list; this justification must be approved by the GPD.

Graduate reading courses

Supervisors may request to offer a graduate reading course in their specialty, but this is discouraged by the Department. If there exists a very strong reason to provide a graduate reading course, the request must be approved by the GPC before the course can be offered. Graduate reading courses do not count towards a faculty course load, and graduate students can only take one such course during their studies (including both MSc and PhD) and have it count as a required course.

5.1.1 MSc students

As part of the academic requirements for obtaining a Master of Science degree, a student must successfully pass three graduate-level courses. At least one of those courses must be from the Department. Students in the MSc program are generally expected to have finished their coursework by the end of their fourth term.

5.1.2 PhD students

As part of the academic requirements for obtaining a Doctor of Philosophy degree, a student must successfully pass three graduate-level courses. At least one of those courses must be from the Department. PhD students who have done their MSc degree in the Department must take at least two courses offered by the department during their combined MSc and PhD studies. Students in the PhD program are generally expected to have finished their coursework by the end of their fourth term.

5.1.2.1 Fast-tracked PhD students or students admitted directly to the PhD

Students fast-tracked from the MSc to the PhD, or students admitted directly to the PhD without a Masters degree must successfully pass a total of six graduate courses, of which at least two must be offered by the Department.

5.2 Examinations

As part of their degree requirements, graduate students must successfully pass a number of examinations. Students must follow current processes to schedule the examinations.

5.2.1 MSc students

MSc students have to pass one examination during their program of studies, the Master's research and thesis defence (PHYS 790). The SC of the student acts as the Thesis Committee for the defence.

5.2.2 PhD students

PhD students must pass the comprehensive examination and research proposal (PHYS 870) as part of their requirements, as well as defend their doctoral research and thesis (PHYS 890).

For the comprehensive examination, the topic will be selected by the supervisor in advance (in agreement with the SC; the SC may decide to make the topic a research proposal for the thesis, at their discretion). The student is required to submit, at least one week before the examination, a Comprehensive Examination Report on the topic to the SC. The format of the examination is one presentation on the report, followed by questions (which may be on any topic the student is expected to know, in addition to the one selected for the examination). If the student fails the comprehensive examination, the SC may decide to offer the student a second chance. A student that fails the comprehensive examination for a second time must withdraw from the program.

Submission and defence of the doctoral thesis must proceed according to the rules and timetables set by the Thesis Office in the School of Graduate Studies.

(<http://www.concordia.ca/students/graduate/thesis.html>)

5.3 Seminar presentations

As part of their degree requirements, all graduate students must successfully give a number of presentations. The seminar presentations are marked on a “pass/fail” basis. If a student receives a “fail”

mark on a presentation, the SC may decide to offer the student a second chance. A student that fails a seminar presentation for a second time must withdraw from the program. Students must follow the current processes to schedule their presentations.

5.3.1 MSc students

MSc students must give a departmental seminar in the field of their research (PHYS 760), generally before the end of their sixth term of studies. This seminar must be given at least three weeks before the thesis defence. In order to obtain a “pass” grade, the student will be required to have attended at least 70% of the Departmental Colloquia held in the previous Fall and Winter terms.

5.3.2 PhD students

PhD students must give a departmental pedagogical seminar on a topic from physics to an advanced-level undergraduate student audience (PHYS 861), generally before the end of their eighth term.

PhD students must also give a departmental seminar in their current research area (PHYS 862), generally before the end of their thirteenth term of studies and under no circumstances after the initial thesis submission. In order to obtain a “pass” grade, the student will be required to have attended at least 70% of the Departmental Colloquia held in the previous Fall and Winter terms.