## Important Dates 2021–22

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 9</td>
<td>Graduate and cross-listed courses and seminars begin.</td>
</tr>
<tr>
<td>Sept. 10</td>
<td>Registration deadline to avoid late fees.</td>
</tr>
<tr>
<td>Sept. 15</td>
<td>Final date to submit Ph.D. thesis to SGS to avoid fee charges.</td>
</tr>
<tr>
<td>Sept. 21</td>
<td>Final date to add Fall courses without an <a href="#">add-drop form</a>.</td>
</tr>
<tr>
<td>Sept. 24</td>
<td>• Final date for the Graduate Office to submit MSc reader reports to SGS.</td>
</tr>
<tr>
<td></td>
<td>• Ph.D. final dissertation must be submitted to SGS for inclusion in November Convocation Ceremony.</td>
</tr>
<tr>
<td>Oct. 11</td>
<td>Thanksgiving holiday — University closed.</td>
</tr>
<tr>
<td>Oct. 25</td>
<td>Last day to drop Fall courses on ACORN without academic penalty. After this date you will need to submit an <a href="#">add-drop form</a>.</td>
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<tr>
<td>Nov. 8–12</td>
<td>Reading Week — no classes in most courses.</td>
</tr>
<tr>
<td>Dec. 8</td>
<td>Last day of classes in Fall term.</td>
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<tr>
<td>Dec. 22</td>
<td>First day of winter break.</td>
</tr>
<tr>
<td>Jan. 3</td>
<td>University re-opens.</td>
</tr>
<tr>
<td>Jan. 10</td>
<td>Graduate and cross-listed courses and seminars begin.</td>
</tr>
<tr>
<td>Jan. 15</td>
<td>Final date to submit Ph.D. thesis to SGS to avoid incidental fees.</td>
</tr>
<tr>
<td>Jan. 10</td>
<td>Registration deadline for students registering or starting their program in January. After this date a registration fee will be assessed.</td>
</tr>
<tr>
<td>Jan. 17</td>
<td>Final date to add Winter courses without an <a href="#">add-drop form</a>.</td>
</tr>
<tr>
<td>Jan. 14</td>
<td>• Final date for receipt of MSc degree recommendations.</td>
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<td></td>
<td>• Final date to submit final doctoral theses to SGS for March graduation.</td>
</tr>
<tr>
<td>Feb. 20</td>
<td>Final day to drop winter session courses without academic penalty. After this date you will need to submit an <a href="#">add-drop form</a>.</td>
</tr>
<tr>
<td>Feb. 21</td>
<td>Family Day holiday — University closed.</td>
</tr>
<tr>
<td>Feb. 22–25</td>
<td>Reading Week — no classes.</td>
</tr>
<tr>
<td>April 8</td>
<td>Last day of classes in Winter term.</td>
</tr>
</tbody>
</table>
Table of Contents

IMPORTANT DATES 2021–22 2

1. WHAT IS A PH.D.? 4

2. PH.D. PROGRAMS IN COMPUTER SCIENCE 5

3. PH.D. COURSE REQUIREMENTS 6
   3.1 MINIMUM NUMBER OF COURSES ................................................................. 6
   3.2 BREADTH REQUIREMENT ............................................................................. 6
   3.3 COURSES OUTSIDE COMPUTER SCIENCE ............................................... 8
   3.4 PLAN OF STUDY AND BREADTH EXEMPTION EVALUATION ..................... 8

4. PH.D. STUDENT SUPERVISION 9
   4.1 SUPERVISOR .................................................................................................. 9
   4.2 PH.D. SUPERVISORY COMMITTEE .............................................................. 9

5. CHECKPOINTS 11
   5.1 CANDIDACY .................................................................................................. 11
   5.2 QUALIFYING ORAL EXAMINATION ......................................................... 11
   5.3 THESIS TOPIC APPROVAL .................................................................... 12
   5.4 ANNUAL PROGRESS REVIEW ................................................................. 13
   5.5 THESIS PROPOSAL ................................................................................... 14
   5.6 DEPARTMENTAL THESIS EXAMINATION ............................................... 14
   5.7 FINAL ORAL EXAMINATION AT THE SCHOOL OF GRADUATE STUDIES .... 15
   5.8 GRADUATION .............................................................................................. 15

6. TIMELINES, DEADLINES, AND (UN)SATISFACTORY PROGRESS 17
   6.1 TIME LIMIT TO DEGREE COMPLETION .................................................. 17
   6.2 DEADLINES ARE SERIOUS ....................................................................... 17
   6.3 UNSATISFACTORY PROGRESS .................................................................. 17
   6.4 DROPPING DOWN TO THE M.SC. PROGRAM FROM THE PH.D. PROGRAM ........................................................................... 18
   6.5 SUMMARY OF PH.D. DEGREE TIMELINE .............................................. 18

7. FORMS, FEES, AND ADMINISTRATIVE PROCEDURES 19
   7.1 FORMS FOR CHECKPOINTS .................................................................. 19
   7.2 ADDING AND DROPPING COURSES ...................................................... 19
   7.3 REGISTRATION AND FEES .................................................................... 19
   7.3 LEAVES — INTERNSHIP, PERSONAL, MEDICAL, AND PARENTAL ....... 21
   7.4 APPEALS .................................................................................................... 22
1. **What is a Ph.D.?**

The main goal of a successful Ph.D. is not so much a thesis, but rather (and much more importantly), it is to train a researcher and prepare them for further professional development. One aspect of this training is to ensure that they have a broad and deep knowledge of Computer Science. The starting point for this aspect is the completion of the Ph.D. course and breadth requirements. However, course work is, by design, limited to relatively narrow and well-defined assignments, projects, and exams. To be a successful Ph.D. student, a candidate needs a much broader set of skills, including the maturity as a researcher to cope with significantly more uncertainty than is typically seen in course work. Additional skills include the abilities to evaluate the current literature, to select promising directions for future work, and to follow some of those directions through to the nuggets of new contributions. In our experience with our students, we typically see these skills develop slowly, continuing through to their graduation from our Ph.D. program. However, our expectation is that the foundations for these skills should already be in place and evident by the beginning of the second year of Ph.D. studies.

Specific foundational skills to be developed by a Ph.D. candidate include these:

a) **The ability to apply the basic tools of the field** in potentially new ways, along with the self-understanding of what they know and what they have yet to learn.

b) **The ability to select significant research contributions** from a larger set of published papers, and justify that selection (for example, on the basis of the significance of the results or the novelty of the approach).

c) **The ability to relate the papers to one another**, and to other research in the literature.

d) **The ability to critique the research methods** used in these papers, including the strengths and weaknesses of these methods and likely threats to validity, whether these are acknowledged in the papers or not.

e) **The ability to identify limitations of the results** (and possibly errors) reported in the papers, along with their implications.

f) **The ability to suggest alternative approaches** to answering the research questions posed in these papers.

g) **The ability to identify and prioritize lines of investigation for further research**, based on an understanding of significant limitations of the research described in the papers and/or important open problems that the papers fail to answer, and also on the likelihood of being able to make progress on such issues.

This handbook describes the program requirements for the Ph.D. program in Computer Science. These requirements are meant to ensure that our students receive regular assessment and feedback on their progress toward these goals, and our graduates meet expectations.
2. Ph.D. Programs in Computer Science

The Department of Computer Science has three Ph.D. programs that are appropriate for students with different backgrounds. Students are assigned to one of these Ph.D. programs upon admission. The end result of these programs is the same, namely a Ph.D. in Computer Science.

1. **Ph.D.**: Students who entered the Ph.D. program after having completed their M.Sc. program in our department.

2. **Ph.D.-M**: Students who have completed the M.Sc. degree (or equivalent) in Computer Science elsewhere and have now entered the Ph.D. program.

3. **Ph.D.-Direct**: Students who have completed a B.Sc. and have entered directly into the Ph.D. program. Also denoted as the **Ph.D.-U** program

As described below, the degree requirements vary across these three programs due to differences in the student’s prior education.
3. **Ph.D. Course Requirements**

3.1 **Minimum number of courses**

The *course requirement* covers the minimum number of courses required by a degree program. Students in the Ph.D. and Ph.D.-M programs are required to complete **four** graduate half-courses, and students in the Ph.D.-Direct program must complete **eight** graduate half-courses. In order to obtain credit for a course, the student must obtain a mark of B– or higher. (Note that where a course is cross-listed with an undergraduate course, graduate students must enrol in the graduate section to receive credit. In many cross-listed courses, graduate and undergraduate students are assessed differently.)

In some cases, students may reduce the number of courses they are required to take by requesting transfer credit for graduate courses that were completed but never used toward the requirements of another degree, diploma, certificate, or any other qualification (either at UofT or elsewhere), or as a Non-Degree Special Student. Students may request to transfer up to 1.0 Full Credit Equivalents (that is, up to two half-credit courses) to their current degree program using the *transfer credit form*.

For students who have completed the M.Sc. program in DCS, any graduate half-courses completed beyond the M.Sc. course requirement (i.e., taken while the student is registered as an M.Sc. student in DCS) can be used towards the Ph.D. course requirement.

3.2 **Breadth requirement**

The breadth requirement for the Ph.D. degree program ensures that students complete courses from a sufficiently wide range of topics within Computer Science. The Ph.D. program requires breadth in different *research areas* of Computer Science.

CS courses are classified on the basis of their content into four *methodologies* and sixteen *research areas*. Methodologies are core problem-solving approaches and/or techniques and general tools emphasized in the course material, while research areas are aligned with the activities of the various research groups in the department. The methodologies and research areas are described in the boxes below.

The classification of courses is given in the course timetable on the DCS website. Not all courses (e.g., CSC 2600) qualify for breadth.

The Ph.D. breadth requirement depends on the student’s program:

- **Ph.D.**: For a Ph.D. student who is following on from an M.Sc. degree in our department, the eight graduate half-courses taken over their M.Sc. and Ph.D. together must include courses from at least four different research areas and three methodologies. In this sense, courses taken during the student’s M.Sc. are counted both for achieving methodological breadth and for research area breadth. A Plan of Study form (see section 3.4 below) must be submitted prior to the beginning of their first session.
- **Ph.D.-M**: Students who completed a master’s degree elsewhere are required to submit a Plan of Study and Breadth Exemption Evaluation form (see section 3.4 below) prior to the beginning of their first session in order for the Associate Chair, Graduate Studies to assess whether any breadth can be transferred to their Ph.D. program here. Including any transferred breadth areas, these students must complete courses from at least four different research areas.

- **Ph.D.-Direct**: Ph.D. students who are entering the program directly from a bachelor’s degree are required to take a total of eight graduate half-courses. These must include courses from at least four different research areas and three methodologies. A Plan of Study form (see section 3.4 below) must be submitted prior to the beginning of their first session.

Graduate courses that were completed in a prior graduate program (either at UofT or elsewhere) may qualify to fulfill the breadth requirement — see section 3.4 below.

<table>
<thead>
<tr>
<th>Methodologies</th>
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<tr>
<td><strong>Methodology 1: Analysis and Computation in Discrete Models</strong></td>
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<tr>
<td>The courses in this grouping focus on the analysis of, and algorithms for, discrete mathematical structures, such as graphs, formal logic, and formal models of computation. The grouping includes courses that analyze computational limitations and discrete computation. These courses study and apply techniques from areas such as probability, combinatorics, algebra, mathematical programming, and formal logic.</td>
</tr>
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</table>

| **Methodology 2: Analysis and Computation in Continuous Models** |
| The courses in this grouping focus on the analysis of and algorithms for continuous mathematical models. Topics include the derivation of mathematical models, their properties, and computational techniques for approximating their solution. These courses study and apply techniques from areas such as probability and statistics, computer graphics, computer vision, numerical analysis, and machine learning. |

| **Methodology 3: Building Software and Hardware Artifacts** |
| This grouping includes courses that study the design and implementation of specific software or hardware artifacts. These courses expose students to the challenges in building artifacts such as computer-animated movies, computer-aided design systems, databases, network protocols and devices, and simulations of large-scale systems. Courses in this group typically have a significant project component in which students build a substantial software or hardware artifact. |

| **Methodology 4: Human-Centered and Interdisciplinary Computing** |
| This grouping includes courses that study computational paradigms and methods within human-computer interaction or scientific domains outside traditional computational sciences. These courses typically have a cross-disciplinary component, involving fields such as the life sciences, linguistics, psychology, social sciences, and economics. |
### Research Areas

| 2. Complexity and Cryptography          | 11. Knowledge Representation   |
| 6. Computer Systems and Networks        | 15. Interdisciplinary Computer Science |
| 8. Database Systems                     |                                |
| 9. Distributed Computing                |                                |

### 3.3 Courses outside Computer Science

Students are allowed to take courses offered by other departments, provided that the offering department gives permission to enrol — and provided that the student’s courses, overall, meet the breadth requirements of their degree.

A few courses offered by other departments on topics that are closely related to computer science are accepted for fulfilling breadth requirements. The current list of these courses is available [here](#). Students may propose the addition of courses to this list by contacting the Graduate Office.

### 3.4 Plan of Study and Breadth Exemption Evaluation

Before starting their degree, a student must submit a Plan of Study Form and optional Breadth Exemption Evaluation Form to Graduate Office for approval, listing the courses that they propose to take in order to satisfy the breadth requirement. (Not all courses are offered each year, and it is not always known in advance which courses will be offered. It is understood, therefore, that the student’s proposed list of courses might need to be altered in the future, in which case a revised form should be submitted.)

The form also allows the student to request that graduate-level courses taken in a prior graduate program be recognized in fulfilling the requirement. To support such a request, the student should submit evidence of the course content (e.g., a syllabus or copies of course notes), the problem-solving approach or technique used in the course (e.g., copies of assignments or exams), and proof of their grade in the course (e.g., their transcript; unofficial copies are okay) along with their Plan of Study form. But note that graduate courses taken in fulfillment of a bachelor degree’s course requirement do not count towards the breadth requirements (not even graduate courses from our department).
4. Ph.D. Student Supervision

4.1 Supervisor

Every Ph.D. student is assigned a supervisor (and possibly a co-supervisor) prior to registration. The supervisor advises on course selection and thesis topic selection, and provides continuing help during the conduct of research. All students are required to consult frequently with their supervisors throughout their graduate studies, to report on their progress, to ask questions, and to obtain advice regarding their research.

To be the primary or sole supervisor of a Ph.D. student, a faculty member must hold full membership in the School of Graduate Studies, with a specific graduate faculty appointment in the Department of Computer Science (i.e., a CS-SGS membership). (With approval from the Associate Chair, Graduate Studies, faculty with an emeritus appointment in CS-SGS may also supervise Ph.D. students.) When a Ph.D. student is co-supervised, at least one of the co-supervisors must be identified as the primary supervisor (a.k.a. supervisor of record), and this faculty member must hold a full or emeritus membership in CS-SGS. The other co-supervisor must hold full, emeritus, or associate membership in CS-SGS.

An excellent guide for making the most of the relationship between a student and their supervisor is the supervision guidelines provided by SGS. Take note of the checklists for both students and supervisors provided in Appendix 2 of each version of this document. The Department of Computer Science supports the expectations stated in this guide, and we encourage students to discuss these checklists with their supervisor.

Occasionally the student-supervisor match is not productive. Any student who finds themselves in such a situation should discuss difficulties or concerns with their current supervisor. In many cases, the reason is an issue which might be resolved by talking it out. If no resolution can be found, students who feel a need to change their supervisor are welcome to seek advice from the Associate Chair, Graduate Studies. However, the ability to switch supervisors depends on the availability of another faculty member to serve in this role. A Supervisory Committee Composition Form must be submitted to seek approval for change of supervision.

4.2 Ph.D. Supervisory Committee

The purpose of the student’s Ph.D. supervisory committee is both to aid the student by providing timely advice and to evaluate the student’s progress towards a Ph.D. thesis.

By the end of their 16th month of program registration, and preferably much sooner, each Ph.D. student must form a Ph.D. supervisory committee consisting of at least three members, including the supervisor and, if applicable, co-supervisor. Besides the supervisor, and possible co-supervisor, the other committee members must be associate or full members of SGS (although not necessarily in CS-SGS).
In addition, external experts can also serve on a supervisory committee as “advisors” (this term is **not** synonymous with “supervisor”). An advisor would normally be someone who provides special expertise that is not available within the university. Advisors can take part in all the student’s committee meetings with the following exceptions: a) they do not contribute to a quorum, and b) although they are permitted to attend the student’s Final Oral Examination, they cannot vote. The request for an external expert to serve as an advisor on a Ph.D. committee can be made by e-mail to the Associate Chair, Graduate Studies, gradchair@cs.toronto.edu, accompanied by a brief rationale and CV.

The supervisory committee is chaired by a member who is neither the supervisor nor the co-supervisor. The chair is responsible for running the meetings of the committee and reporting the results to the Graduate Office.

Students should notify the Graduate Office of the formation of the Ph.D. supervisory committee, and of any changes to that committee using the Supervisory Committee Composition form. Changes to the supervisory committee should only be made in consultation with the Graduate Office and all changes must be reported immediately.
5. Checkpoints

To ensure that students are making satisfactory progress in their program, a series of checkpoints must be passed, beginning with the Qualifying Oral Examination (section 5.2 below) and ending with the Departmental Thesis Examination (section 5.6 below) in preparation for the Final Oral Examination (section 5.7 below).

5.1 Candidacy

A Ph.D. student is said to have achieved candidacy when they have completed all the requirements of their program except for the dissertation. (At some other universities, this is called “all but dissertation” or “ABD.”) SGS requires that Ph.D. and Ph.D.-M students achieve candidacy within the first 36 months of their program, and Ph.D.-Direct students within the first 48 months.

Achieving candidacy involves:

1. completing all required courses and satisfying the breadth requirement (see section 3 above);
2. successfully passing the Qualifying Oral Examination (see section 5.2 below); and
3. having a thesis topic approved at a meeting of the student’s Ph.D. supervisory committee (see section 5.3 below).

Students who do not achieve candidacy within the required time may be terminated from the program. Requests for an extension will be considered in exceptional circumstances.

5.2 Qualifying Oral Examination

The Qualifying Oral Examination must be held within 16 months of the start of the Ph.D. program. Note that the student must have formed the Ph.D. supervisory committee and have had it approved at least several weeks in advance of this exam.

Working with their supervisor, the student should select 5–10 research papers to be emphasized at the Qualifying Oral. These should be important papers in one research area of relevance to CS. This research area need not correspond to the student’s eventual choice of Ph.D. topic — students need not be committed to a thesis topic at this stage. In relation to the selected papers, the student will be examined on the points (a) through (e) listed in section 1 above. It is expected that students will have read and understood more than just the selected papers, but it is not expected that the student master the majority of the relevant literature at the time of this exam.

In order to help focus the initial questioning, the student will prepare a short position paper (no more than about 10 pages, 1.5-spaced, in a reasonable font) on points (c)–(e), as outlined in section 1 above. If the student has begun to investigate this area themselves, then they are welcome to briefly describe their progress so far. In addition, it is the student’s option to discuss the expected overall scope of the questioning with their supervisory committee prior to the exam.
At the beginning of the Qualifying Oral, the student will be asked to give a 15–20 minute talk to introduce their position on the research described in the selected papers. This will be followed by one or more rounds of questioning by the supervisory committee. During this questioning, it is critical that the student demonstrate an understanding of CS tools and techniques that are relevant to pursuing research in the area.

The supervisory committee will provide written feedback to the student (through the DCS Graduate Office), and the student will be invited by the Graduate Office to respond to this feedback. In addition, one of the following examination results will be provided:

1. **Pass**: A pass may be accompanied by constructive feedback and/or suggestions for activity in the next term(s).
2. **Conditional Pass**: The student is given one or more concrete tasks to complete by a specific deadline (no more than 12 months later). The tasks and the deadline are also communicated to the Graduate Office. The chair of the Qualifying Oral must subsequently report to the Graduate Office whether or not the student has cleared the conditions by the deadline. If the student fails to clear the conditions by the deadline, then they will be considered to be making unsatisfactory academic progress.
3. **Fail (with the option to repeat)**: The student is considered to not be making satisfactory academic progress, and must retake the exam within 6 months. The student will not be given a third chance to pass the exam.
4. **Fail (no option to repeat)**: The committee recommends that the student must either withdraw from the program or have their registration terminated. This result is possible only for students who were considered to be not making satisfactory academic progress at the time of the exam. The Associate Chair, Graduate Studies will review such a recommendation.

### 5.3 Thesis Topic Approval

Students should have their thesis topic approved within 12 months of completing their Qualifying Oral (i.e., no later than 28 months after starting their program). Delaying this step until the SGS deadline for candidacy will make it difficult to complete the thesis within the guaranteed funding period.

A thesis topic needs to be sufficiently broad enough to form the basis of the thesis, and it should be plausible that the student will be able to complete a thesis on the topic within the remainder of time for their degree. A student may still decide to switch thesis topics after achieving candidacy without affecting their candidacy; however, the student will need to clearly describe their new thesis topic to their supervisory committee members and have it approved during the next meeting of the committee.

To obtain thesis topic approval, the student should submit a written description of their thesis topic to their committee in advance of the meeting. This document should:

1. describe the scope of the proposed research;
2. explain its context with respect to the current literature (see items (a)–(g) in the
   section 1 above); and
3. provide an initial research plan.

The committee may approve the topic proposal as is or on condition that revisions be
made under the supervisor's direction; or the committee may require the student to re-
peat the Thesis Topic Approval meeting. In the event of a second unsatisfactory attempt,
the committee may recommend that the student must either withdraw from the program
or have their registration terminated.

5.4 Annual Progress Review

Annual progress reviews are for students who have passed their Qualifying Oral Exam-
ation, but are not yet ready for their Departmental Thesis Examination. Typically, the
meeting at which the thesis topic is approved is also the student's first annual progress
review, and the meeting at which the thesis proposal is presented is their last.

Timing: Yearly progress reviews must be held at least every 12 months following the suc-
cessful completion of their Qualifying Oral Exam. If the student is expecting to schedule
their Departmental Thesis Examination shortly after this deadline has passed, then they
may contact the Graduate Office to request a one-term extension.

Purpose: To assess the student's research progress since the previous committee meeting
and to provide feedback on the student's research plans for the coming year.

Student preparation: The student should prepare a progress report to discuss with
their committee. If approaching the deadline for candidacy, the student should be pre-
pared to have their thesis topic approved. As the student approaches the time of their the
Departmental Thesis Examination, the student should prepare a Thesis Proposal (see
section 5.5 below) for approval at the meeting.

Committee recommendations: After an annual progress review, the supervisory com-
mittee will provide written feedback to the student (through the Graduate Office) and the
student will be invited by the Graduate Office to respond to this feedback. In addition,
one of the following results will be provided:

1. Pass: A pass may be accompanied by constructive feedback and/or suggestions
   for activity in the next term(s).
2. Conditional Pass: The student is given one or more concrete tasks to complete
   by a specific deadline (no more than a year later). The tasks and the deadline are
   also communicated to the Graduate Office. The meeting chair is responsible for
   reporting to the Graduate Office whether or not the student has cleared the condi-
   tions by the deadline. If the student fails to clear the conditions by the deadline,
   their progress will be considered unsatisfactory.
3. Fail (with the option to repeat): The student is not considered to be making
   satisfactory academic progress and must hold another Ph.D. supervisory commit-
   tee meeting within 6 months.
4. **Fail (no option to repeat):** The committee recommends that the student must either withdraw from the program or have their registration terminated. This result is possible only for students who were not considered to be making satisfactory academic progress at the time of the exam. The Associate Chair, Graduate Studies will review such a recommendation.

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**Legacy System for Ph.D. Supervisory Committee Meetings**

Ph.D. students who enrolled in their program before 1 September 2015 and who are maintaining regular meetings with their supervisory committees may continue with the previous Ph.D. checkpoint system. Alternatively, they may opt into the present system for supervisory committee meetings, as described above. However, if a student under the legacy checkpoint system fails to have a committee meeting for 18 months or more, they will be automatically placed into the new system. Ph.D. students in the legacy system must complete progress monitoring reports prior to each checkpoint. These reports will be reviewed by the student’s supervisory committee.

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### 5.5 Thesis Proposal

The primary purpose of a **thesis proposal** is approval from the supervisory committee for the overall scope of the eventual thesis. In preparation, the student should submit a written proposal to the supervisory committee that:

1. outlines both the completed and anticipated results of the thesis;
2. demonstrates that a substantial portion of research has been successfully completed; and
3. provides a clear plan for completing the remaining research.

Typically, a thesis proposal is a draft of a substantial portion of the dissertation itself, along with a clear description of the remaining work to be completed. The supervisory committee assesses the scope and relevance of the problems the student has to solve in the proposed Ph.D. dissertation. The thesis proposal is typically completed 6–12 months prior to the Departmental Thesis Examination.

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### 5.6 Departmental Thesis Examination

At the Departmental Thesis Examination, the student defends the dissertation before their supervisory committee. Other members of the department are also invited. A draft of the dissertation should be available to the committee members three to four weeks in advance of the examination. Each member of the committee is expected to read the dissertation in sufficient detail to form a judgement about its acceptability.

In the examination, the student presents an overview of their dissertation, in 20 minutes or less, with an emphasis on the novel aspects and contributions. The committee members then question the student in as many rounds as necessary.

Unlike other checkpoints, the student’s presentation and committee questioning of the Departmental Thesis Examination are open to all members of the department, and students are encouraged to attend. (Exams are announced a week or two before the event.) The committee’s deliberations, both before and after the presentation and questioning,
remain private and confidential. A protocol for handling this in online meetings is sent to the committee chair in advance of the meeting.

The committee may approve the dissertation as is or on condition that revisions be made under the supervisor’s direction; or the committee may require the student to repeat the Departmental Thesis Examination. In the event of a second unsatisfactory attempt, the committee may recommend that the student must either withdraw from the program or have their registration terminated.

5.7 Final Oral Examination at the School of Graduate Studies

Upon the successful completion of at the Departmental Thesis Examination and any required revisions to the dissertation, the candidate will be ready to go forward to the Final Oral Examination (FOE) at the School of Graduate Studies.

The Examination Committee of the FOE consists of one to three members of the student’s original Supervisory Committee, and at least two examiners who have not been closely involved in the supervision of the thesis, including an external appraiser approved by SGS and one or two members of SGS, from DCS or other departments of the university. The FOE is chaired by a non-voting member appointed by SGS from another department of the university. The external appraiser must be at arm’s length from both the student and the supervisor(s). Normally, this will exclude anyone who has served as Masters or Ph.D. Supervisor / Supervisee of the Candidate or the Supervisor or has, in the past six years, been a departmental colleague of the Candidate or the Supervisor, or has collaborated on a research project, scholarly work or publication, with either of them. The SGS Vice Dean (Students) will assess whether the nominee is at arm’s length.

It is important to allow yourself and the Graduate Office plenty of time to organize the necessary steps and follow the required procedures in setting up your FOE. At least ten weeks prior to the proposed date of the examination, the student should notify the Graduate Office of the intention to book a FOE. The ten week period is required for SGS to approve the external appraiser; for the external appraiser and other new committee members to read the dissertation; and for the external appraiser to write a detailed report that is received by the student at least two weeks before the examination in order to prepare any necessary rebuttals or answers to questions therein. Moreover, SGS is under no obligation to find a chair for the FOE if a minimum of six weeks’ notice is not provided; and without a chair, the exam cannot proceed.

All forms and instructions are available on the DCS web page. Full FOE details and regulations, including details of how the exam is conducted and hence how to prepare for it, can be found on the SGS website.

5.8 Graduation

Following the completion of the Final Oral Exam and the submission of the final dissertation, SGS will submit a Recommendation for Degree and the student’s name will be
added to the convocation roster. A graduation package will be sent to the student from the Convocation Office regarding convocation dates, tickets, etc.
6. Timelines, Deadlines, and (Un)Satisfactory Progress

6.1 Time limit to degree completion

There are two program time limits. The departmental time limit refers to the amount of time a student receives guaranteed funding from the department. SGS time limits refer to the amount of time a student may register in their program.

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<thead>
<tr>
<th>Program</th>
<th>Departmental guaranteed funding period</th>
<th>SGS time-limit for degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D.</td>
<td>43 months</td>
<td>72 months</td>
</tr>
<tr>
<td>Ph.D.-M</td>
<td>48 months</td>
<td>72 months</td>
</tr>
<tr>
<td>Ph.D.-U</td>
<td>60 months</td>
<td>84 months</td>
</tr>
</tbody>
</table>

In exceptional circumstances, a Ph.D. student who does not complete all the requirements for the degree within the SGS time limit may be considered for a maximum of four one-year extensions, bringing the final limit to 10 years for the Ph.D. and Ph.D.-M programs and 11 years for the Ph.D.-U program.

Students who have serious health problems or personal circumstances that prevent them from making satisfactory progress are entitled to take a leave from graduate studies. Such a leave effectively stops the clock for funding and time to degree completion; on return, the student is entitled to resume at the point where they left, without penalty.

6.2 Deadlines are serious

Students who fail to meet the deadlines for the Qualifying Oral Examination, or the Annual Progress Review will be considered to not be making satisfactory academic progress. Students who anticipate being unable to schedule a committee meeting before the deadline should contact the Graduate Office as soon as possible. See also SGS General Regulations, section Graduate Student Supervision; Degree Regulations for Doctoral Degrees; and specific program requirements for Computer Science in the Programs by Graduate Unit section of the SGS Calendar.

Students must notify the Graduate Office of all scheduled committee meetings at least two weeks in advance of the meeting, so that the appropriate forms can be sent to committee members. If the Graduate Office is not notified of a checkpoint meeting in advance of the meeting, it will not be official and may not count in the student’s progress.

6.3 Unsatisfactory Progress

Being considered to be making unsatisfactory academic progress can have serious consequences. For example, if a student fails a subsequent qualifying oral or supervisory committee meeting while they have this status, or if the student misses a second consecutive deadline, then they will be offered the option to either withdraw from the program or have their registration terminated. (see SGS information on termination).
6.4 Dropping Down to the M.Sc. Program from the Ph.D. Program

Students in the Ph.D.-Direct program may choose to drop down to the M.Sc. program, in which case they will be required to complete the standard M.Sc. program requirements (namely, the M.Sc. course breadth requirements along with the M.Sc. research paper). Similarly, students in the Ph.D. program whose previous M.Sc. degree is not in Computer Science can drop down to the M.Sc. program. In either case, the student’s guaranteed funding period will be reduced to 17 months, the limit for the M.Sc. program. If the student has been funded for more than 17 months, their funding will be terminated. A Program Transfer form must be submitted to make the switchover official.

6.5 Summary of Ph.D. Degree Timeline

<table>
<thead>
<tr>
<th>Months in program</th>
<th>Program progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>−1 month (i.e., prior to entry)</td>
<td>Submit Plan of Study Form and optional Breadth Evaluation to Graduate Office.</td>
</tr>
<tr>
<td>16 months</td>
<td>Form a supervisory committee. Pass the Qualifying Oral Examination.</td>
</tr>
<tr>
<td>12 months following completion of Qualifying Oral Exam</td>
<td>Supervisory committee approval of the thesis topic.</td>
</tr>
<tr>
<td>At least annually following formation of the supervisory committee</td>
<td>Yearly progress review in a supervisory committee meeting.</td>
</tr>
<tr>
<td>28 months for Ph.D. and Ph.D.-M 40 months for Ph.D.-U</td>
<td>Achieve candidacy: Complete all required course work, including breadth requirements, and the checkpoints above.</td>
</tr>
<tr>
<td>34 months for Ph.D. 39 months for Ph.D.-M 51 months for Ph.D.-U</td>
<td>Thesis proposal presented in yearly supervisory committee meeting.</td>
</tr>
<tr>
<td>40 months for Ph.D. 45 months for Ph.D.-M 57 months for Ph.D.-U</td>
<td>Departmental Thesis Examination. A minimum of 10 weeks is required between the completion of the Departmental Thesis Examination and the FOE.</td>
</tr>
<tr>
<td>42 months for Ph.D. 47 months for Ph.D.-M 59 months for Ph.D.-U</td>
<td>Final Oral Examination at the School of Graduate Studies. Students are required to be registered until the submission of the final and corrected thesis. Students will receive one month to submit Minor Modifications and up to three months to submit Major Modifications following the FOE.</td>
</tr>
<tr>
<td>43 months for Ph.D. 48 months for Ph.D.-M 60 months for Ph.D.-U</td>
<td>Final thesis submitted (if only Minor Modifications are required).</td>
</tr>
</tbody>
</table>
7. Forms, Fees, and Administrative Procedures

DCS and SGS forms for all common requests are available here.

7.1 Forms for Checkpoints

All checkpoints require submission of scheduling forms to the Graduate Office at least two weeks prior to the meeting.

**Supervisory Committee:** By the 16th month of your Ph.D. program registration, you must form a Ph.D. supervisory committee. Complete the Supervisory Committee form, and submit it to the Graduate Office.

**To schedule any departmental checkpoint:** Submit the Checkpoint Scheduling form to the Graduate Office at least two weeks before the meeting.

**Final Oral Examination:** Your Supervisor will contact the Graduate Office to arrange SGS approval for the External Examiner. Once approval is received, you should complete the Final Exam Scheduling form, which will start the scheduling process with SGS. *You must allow 10 weeks for the complete process, and the date of the exam must be at least 8 weeks after the date you send your thesis to the External Examiner.*

7.2 Adding and Dropping Courses

Students may enrol in courses for the 2021–22 Fall and Winter sessions starting on 19 July on ACORN. The last day to add courses for the Fall session is 21 September and for the Winter session is 17 January; after these dates, an add-drop form is needed to enrol in courses.

7.3 Registration and Fees

Students are considered to be registered as soon as they have paid the minimum tuition and incidental fees, or have made appropriate fees arrangements. The registration deadline for students registering in the 2021 Fall session is 10 September; after this date a late registration fee will be assessed.

**General fee information:**

- Fee schedules are available on the Student Accounts website and students may pay fees as soon as their invoice is updated on www.acorn.utoronto.ca
- UHIP charges for international students are included on their fees invoice.
- Students wishing to make a fees payment from outside of Canada may choose one of the fee payment options outlined on the Student Accounts website.
- While students with outstanding severe conditions will be blocked from requesting registration without payment on ACORN, they can still pay fees at the bank. The payment will not change an INVIT status to REG.
• Continuing students with outstanding conditions from the previous year or who have allowed their registration to lapse do not have an INVIT created for the session and will not be able to pay fees until conditions are cleared.

Students with arrears: Students with arrears — that is, fees owing from prior sessions — are not eligible for Fall registration until they have paid their outstanding balance in full. Students are encouraged to clear their arrears early and seek prompt advice from the SGS Financial Aid and Advising team if they are unable to make full payment before the final day to register.

Requesting to register without payment: Students can request to register without payment (tuition fee deferral) via ACORN if they have no outstanding fees from a previous session and are the recipient of one of the following awards and it exceeds the Minimum Payment to Register amount on their invoice:

- OSAP loan;
- Other provincial government loan;
- U.S. government loan;
- University funding package (major award, research stipend, or teaching stipend).

However, if you are receiving a major award, research stipend, or teaching assistantship which is not part of a funding package, or requesting to register without payment after the registration deadline, the Register Without Payment (Fee Deferral) form must be used.

Final Year Doctoral Fees: Full-time students in the final year of their doctoral program pay a prorated tuition fee based on the full-year tuition fee for their program (i.e. number of months registered times one-twelfth of the annual fee). Incidental and ancillary fees are not prorated. Fees are based on the date of final thesis submission to SGS, not the date of the defence.

Doctoral students who complete all degree requirements (i.e., defend and submit a final dissertation with all corrections and modifications approved to SGS) by 15 September do not pay fees for the September session. After 15 September, and the 15th of every month thereafter, a monthly fee is charged for each month the degree requirements are not completed.

Doctoral students will be billed for the annual fee but may choose to pay: (1) the full fee, (2) the minimum first payment, or (3) the fee based on the expected date of completion. If a student pays less than the full-year fee, a monthly service charge will be applied to any outstanding balance starting 15 October. When degree requirements are complete, the Student Accounts Office will adjust the fees accordingly, including service charges to outstanding balances that have accrued since 15 September.
7.3 Leaves — Internship, Personal, Medical, and Parental

**Personal, medical, and parental leaves:** Students requiring immediate time away from their studies for personal, medical, or parental leave should notify the Graduate Office as soon as possible (see “How to request a leave” below).

**Paid parental leave:** (1) If your supervisor is supporting you from an NSERC, CIHR, or SSHRC grant, you may be entitled to continued support for up to 12 months while on parental leave (in addition to your guaranteed funding period); see the Tri-Agency Financial Administration guide for details. To apply for this support, contact the Graduate Office.
(2) Alternatively, you may be eligible for an SGS Parental Grant for two or three sessions; see the SGS Parental Grant webpage for details.

**Internship leave:** Internships are not a component of the research programs in the Department of Computer Science. However, they are recognized as an important experience for our graduate students.

It is important to notify the Graduate Office well in advance of taking up an internship (see table below). Failure to meet these deadlines ends up costing the department money, and this charge could be passed on to you. If there is a substantive reason why you are unable to meet the notification deadline, contact the Graduate Office.

<table>
<thead>
<tr>
<th>Term</th>
<th>Notify the Grad Office of intention to take leave by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer (May–August)</td>
<td>10 February</td>
</tr>
<tr>
<td>Fall (September–December)</td>
<td>30 June</td>
</tr>
<tr>
<td>Winter (January–April)</td>
<td>15 October</td>
</tr>
</tbody>
</table>

**How to request a leave:** Students may request an official leave of one to three terms by completing an SGS Request for Leave of Absence form, and submitting it to the Computer Science Graduate Office with a brief statement of the reasons that the leave is requested. The statement must be signed by the student and the supervisor. If you are applying for a parental leave and want to be considered for an SGS Parental Grant, you should also submit an SGS Parental Grant application.

**Note:** SGS does not distinguish between personal and internship leaves. Leaves are always granted for an entire term and cannot be prorated to months or weeks. If you require a leave outside of a normal academic term, please consult with the Graduate Office. If you take a leave without approval from the Graduate Office, you will not be protected from the financial and program-progress implications.

**How is time to completion affected by a leave of absence?** For approved leaves, the remaining funding, the remaining components of your program, and the time-to-completion for your degree will be extended by the amount of time (number of terms) taken for the leave. This is calculated per term and cannot be prorated by weeks or days.
How are tuition fees affected by a leave of absence? Graduate School tuition fees are assessed on a program basis rather than on the number of courses taken or the number of sessions per year. Students are permitted to pay their program tuition fees in two parts, payable in the Fall and Winter Sessions. Graduate students who have paid tuition for the full year do not, in effect, pay tuition for the summer months but remain registered for that period. When a student takes a leave for any purpose, they will not be registered in the program for the duration of the leave.

How are funding and scholarships affected by a leave of absence? Student funding will be put on hold for the duration of an official leave. Students must notify the Graduate Office when they return from leave so that registration and funding can resume.

Agencies such as OGS and NSERC will allow for medical leave. However, students on personal or internship leave must check the regulations of any scholarships that they are receiving to make sure that the agency will allow a break for work experience and deferral of payments.

A break in registration may also impact your income tax calculations. Further, it may mean that any student loans you have will be immediately payable! You should check with your loan agency about repayment regulations. International students should ensure that they have an appropriate visa that will allow them to not be registered as a student while they work at an internship, and that they will have health insurance coverage in this period.

7.4 Appeals
Graduate students may appeal the decisions made by their Ph.D. supervisory committee or by a course instructor. The procedures for such an appeal are described in the SGS Calendar (see SGS Academic Appeals Policy).