### **Proposal for DCS Graduate Student Supervision**

**Purpose:** Clarify and update the Department of Computer Science's (DCS's) rules for graduate student supervision.

## SGS and CS-SGS memberships

The permissions to fill various roles in graduate teaching and supervision in DCS are determined by that individual's graduate faculty appointments within the School of Graduate Studies (SGS). An individual may have several graduate appointments, possibly at different levels, in several different graduate units (e.g., departments) within UofT. We refer to a graduate faculty appointment in any UofT department as a SGS membership, and we refer to the specific appointment provided by DCS as a CS-SGS membership.

SGS memberships are given in the three levels: associate, full, and emeritus. Different appointment levels correspond to different permissions for graduate supervision, as we describe further below. An individual's membership in any specific graduate unit may also include additional restrictions, as specified in the individual's graduate appointment letter. We refer to appointments which have such additional constraints as restricted memberships (e.g., an individual may be an associate-restricted member of CS-SGS). A common restriction is that an individual may not be permitted to take on new DCS graduate students.

The permission for a faculty member to fill certain supervisory roles in DCS graduate education depends only on the CS-SGS and SGS appointments of the faculty member, irrespective of whether they are tri-campus research faculty within DCS, teaching faculty within DCS, visiting faculty, or CSAs (cross appointed, status-only, or adjunct faculty).

For more information about graduate faculty memberships, see the SGS calendar (use search key: "University Toronto SGS Graduate Faculty Membership").

## Supervisor of Record, Co-Supervisors, and Research Credit

SGS makes a distinction between the supervisor of record, and other co-supervisors. SGS requires that a student must have one supervisor of record. In addition a student may have up to two other co-supervisors. The supervisor of record has the responsibility of overseeing the student's progress, and s/he is responsible for DCS's obligations to the student.

In situations where the student has co-supervisors, the specification of one faculty member as the supervisor of record does not imply that that faculty member is performing the majority of research supervision. Indeed, it is often appropriate for the supervisor of record and other co-supervisors to share the credit for research supervision equally. The appropriate assignment of research credit between several co-supervisors (including the supervisor of record) is left to the acknowledgements section of research paper or thesis, plus the student's and co-supervisors' CVs.

#### **MSc Student Supervision and Co-Supervision**

An MSc student in DCS must have a supervisor of record, and this faculty member must be a member of CS-SGS. The supervisor may be an associate, full, or emeritus member in CS-SGS. However, emeritus members of CS-SGS must apply to the department for permission to supervise a new student. Also note that specific restrictions in the CS-SGS appointment may disqualify a CS-SGS member from supervising a new student.

An MSc student may also have one or two additional co-supervisors. These additional co-supervisors must be members of SGS.

## PhD Student Supervision and Co-Supervision

A PhD student in DCS must have a supervisor of record, and this faculty member must be either a full or emeritus member of CS-SGS. However, emeritus members of CS-SGS must apply to the department for permission to supervise a new student. Also note that specific restrictions in the CS-SGS appointment may disqualify a CS-SGS member from supervising a new student.

A PhD student may also have one or two additional co-supervisors. These additional co-supervisors must be members of SGS.

## **PhD Student Supervisory Committee Formation**

Within 12 months of the start of their PhD program a student must establish their PhD supervisory committee, and have this committee approved by the Graduate Office. A quorum for this committee is three SGS faculty members, including the student's supervisor of record and any other co-supervisors. Note that if a student has two other co-supervisors besides the supervisor of record, then these three faculty members may serve as the entire PhD supervisory committee.

## **External Advisors**

A DCS graduate student may have one or more "external advisors" (i.e., individuals without SGS status). Such advisors are subject to the approval of the Graduate Office, and also of the student's supervisor of record and co-supervisors. External advisors do not contribute to the quorum in PhD supervisory committees, but can otherwise fully take part and vote at all the departmental checkpoints. They have a restricted status at the PhD Final Oral Examination (FOE).

## **Industrial Supervisors for MScAC Students**

The supervision of DCS MScAC students follows the same rules as for MSc students in DCS. In addition, each MScAC student must have an industrial supervisor for the duration of their internship.

## **Potential Supervisors Listed in Offer Letter**

Before an offer is made to a prospective graduate student, one or more members of CS-SGS (who have the appropriate graduate faculty status) must have agreed that they are potentially willing to supervise this student. The names of these potential supervisors will be included in the student's offer letter. In addition, before an offer is made to the new student, the potential supervisors must have received DCS approval of their arrangement to fund the student.

### **Supervisor Assignment**

Upon arrival, each new student will be assigned a supervisor of record.

### **Changing Supervisors**

DCS prides itself in allowing students to pursue their interests, as far as possible. Indeed, as our students learn more about research opportunities in different areas, we find about 10% of our students switch supervisors after they arrive. However, it is important to understand that the ability to make any specific switch depends on the availability of another qualified faculty member to serve in this role.

A student and supervisor may find that their professional relationship is no longer productive, and that the relationship should be terminated. If the student is otherwise making good progress, then the student has up to six months to arrange for another supervisor. The department will continue the student's funding during this time, up to the maximum number of months provided in the student's guaranteed funding period.

#### **Good Academic Standing**

A graduate student without a supervisor for six months or longer will not be considered to be in good academic standing. They will have their funding stopped, and will be asked to either withdraw from the program or have their registration terminated.

Graduate students will be asked to either repeat a graduate course they failed or pass an alternative course recommended by the graduate chair. [Any mark below a B- is considered to be a failure.] A student who fails two or more graduate courses will not be considered to be in good academic standing. They will have their funding stopped, and will be asked to either withdraw from the program or have their registration terminated.

PhD Supervisory Committee Meetings (SGS Calendar, 2013-14, p. 55): A student is expected to meet with [their PhD supervisory] committee at least once a year, and more often if the committee so requires. At each meeting, the supervisory committee will assess the student's progress in the program and provide advice on future work. In each of two consecutive meetings, if a student's supervisory committee reports that the student's progress is unsatisfactory, the graduate unit may recommend to the School of Graduate Studies the termination of registration and eligibility of that student. [Typically, the student should be offered the chance to withdraw from the program first.] A student who encounters difficulties arranging a meeting of this committee should consult the [DCS Associate Chair for Graduate Studies] in advance of the relevant deadline for doing so. A student who, through his or her own neglect, fails to meet with

the supervisory committee in a given year will be considered to have received an unsatisfactory progress report from the committee.

Note that if a student is not prepared to hold the next DCS PhD checkpoint meeting (e.g., the "Thesis Proposal"), a student can arrange for a generic "PhD supervisory committee meeting" to get feedback and have their annual progress reviewed.

## **MSc Program Completion**

In addition to completing the course and breadth requirements, an MSc student must also have their MSc research paper evaluated and approved by two readers, one of whom must be the student's supervisor of record. The second reader must be a member of SGS. (Note: While an external advisor can provide feedback on the research paper, they cannot serve as a one of these formal readers.)

### **MSc to PhD Transition**

In a separate process from the MSc research paper approval, an MSc student who wishes to transition to the PhD program must arrange for a full member of CS-SGS to be their PhD supervisor of record. The student's future PhD supervisor of record must notify the Graduate Office of their approval, and also of their arrangement for funding the student. The student's transition to the PhD program is conditional on the department's approval of these arrangements.

### **PhD Program Completion**

A milestone on the route to a PhD that SGS recognizes and records on the students transcript is the achievement of candidacy. To achieve candidacy PhD students must have completed their course and breadth requirements, and have passed their DCS Research Proposal checkpoint.

After achieving candidacy, a PhD student must complete the Thesis Proposal and the Departmental Thesis Examination checkpoints, and then proceed to the Final Oral Examination (FOE) at SGS.

For all departmental checkpoints, at least three members of the students PhD supervisory committee are required to be present, including the supervisor of record. The rules for the FOE are included in the notes below.

## **SGS Imposed Time Limits on Graduate Programs**

The time limit for the MSc program is three years, and six years for the part-time MSc (see the SGS Calendar). In exceptional circumstances a candidate who has failed to complete all the degree requirements within this period may be considered for a maximum of three one-year extensions.

PhD students have two different time limits imposed by SGS. The first is the time to achieve candidacy, and the second is the time to complete the degree.

Students in the PhD-direct program, must achieve candidacy by the end of their fourth year, while all other PhD students must achieve candidacy by the end of their third year. In both cases, up to two 12-month extensions can be applied for in exceptional circumstances.

All degree requirements must be completed within six years from first enrolment for the PhD program (given a previous, relevant MSc) and within seven years for the PhD-direct program. In exceptional circumstances, a candidate who has failed to complete all the requirements for the degree within this period may be considered for a maximum of four one-year extensions.

## NOTES from the 2013-14 SGS Calendar:

http://www.sgs.utoronto.ca/Documents/2013-2014-SGS-Calendar.pdf

1. (p. 158) The SGS calendar has a recent (but not quite up to date) list of DCS graduate faculty members: http://www.cs.toronto.edu/~jepson/gac/DCS\_Grad\_Faculty.pdf

2. (p.54) All doctoral students should have an identified supervisor and supervisory committee as early as practicable in their program.

3. (p.54) The supervisory committee should consist of the supervisor chosen from among the graduate faculty members of the graduate unit and two other members of the graduate faculty.

4. (p.54) Unless the graduate unit has specified earlier deadlines, supervisory committees should be established no later than the end of the fourth session in all doctoral programs, except in five-year (direct-entry) PhD programs, ..., where the supervisory committee should be established no later than the end of the seventh session

5. (p.55) A student is expected to meet with [their PhD supervisory] committee at least once a year, and more often if the committee so requires. At each meeting, the supervisory committee will assess the student's progress in the program and provide advice on future work. In each of two consecutive meetings, if a student's supervisory committee reports that the student's progress is unsatisfactory, the graduate unit may recommend to the School of Graduate Studies the termination of registration and eligibility of that student. A student who encounters difficulties arranging a meeting of this committee should consult the Chair, Director, or Graduate Coordinator of the graduate unit in advance of the relevant deadline for doing so. A student who, through his or her own neglect, fails to meet with the supervisory committee in a given year will be considered to have received an unsatisfactory progress report from the committee.

6. (p.54) Satisfactory performance in a degree program requires the completion of every course taken for graduate credit with a grade of at least a B- ... If a student fails to complete a graduate course in a satisfactory manner (i.e., receives a grade report of FZ or NCR in a course or receives a grade report below the minimum acceptable by the graduate unit), then the graduate unit in which the student is registered may recommend to the School of Graduate Studies the termination of registration and eligibility of that student. If the student is permitted to continue, he or she must repeat the relevant course, or an alternative course recommended by the graduate unit and approved by the School of Graduate Studies, and obtain a satisfactory grade. The report

for the course that was not completed in a satisfactory manner as well as the report for the repeated or alternative course will appear on the student's academic record.

7. p. 56 [A PhD] examination committee, appointed by SGS on the recommendation of the graduate unit, will conduct the Final Oral Examination. The examination committee must include at least four, but no more than six, voting members: one to three of the voting members will have served on the candidate's supervisory committee, and at least two voting members will not have been closely involved in the supervi¬sion of the thesis. Eligible for inclusion in the latter group are the external appraiser (in person or by audio connection), members of the graduate faculty of the candidate's graduate unit, and members of the graduate faculty of other departments, centres, or institutes of the University. The examination committee may include, in addition, up to two non-voting members, who will be members of the graduate faculty of the candidate's graduate faculty of another graduate unit of the University. A quorum is four voting members, two of whom must not have been closely involved in the supervision of the thesis.

p. 57 Members of the graduate faculty are entitled to attend the examination, and with the permission of the Examination Chair, they may ask questions of the candidate, but they must withdraw before the committee's discussion and vote. A qualified observer [such as the student's external advisor] may attend, subject to the same restrictions, if the graduate unit has received approval for such attendance in writing beforehand from the SGS Vice-Dean, Programs. Otherwise, the examination is closed to the public.

# Things To Do:

1. Review by Grad Affairs Committee.

The GAC passed a previous draft on Fri, Nov. 15, 2013, with the exception of rules for arranging the initial supervisor of record. The current draft has been significantly reworded from the one the GAC approved, but the content is intended to be the same (except the assignment of the supervisor of record has been returned to the current practice).

2. Review by DCS faculty.

3. Upon approval, notifications need to be sent as follows:

a) This impacts grad student recruiting, the faculty will need to know.

b) It also impacts students who plan on transitioning from the MSc to the PhD program. They will need to know any new policies asap.

c) Modify Grad Handbook and place a FAQ accessible from web.cs

d) Existing supervisory relationships that do not satisfy these constraints will be dealt with on a case-by-case basis (and, typically, grandfathered).