

GRADUATE SUPERVISION

Guidelines for Students, Faculty, and Administrators

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Contents

Preface	2
Introduction	
Choosing a Supervisor	
Clarifying Expectations	
Responsibilities	
Student	
Supervisor	
Supervisory Committee	
Graduate Unit	
Problem Solving	13
Cross-Cultural Issues	
Finishing Up	15
Scenarios	16
Appendix 1: Resources, People and Facilities, Policies, Other	22
Appendix 2: Checklist for Students	2 3
Appendix 3: Checklist for Supervisors	24

Preface

Most graduate research degrees culminate in a thesis. Thesis students require supervisors. There are few relationships more important to these students than their relationship with their supervisor. The centrality of this relationship requires that it be entered into and maintained with great care. It is incumbent on the University to do everything possible to provide guidance in how to maximize the likelihood of excellent supervision. The School of Graduate Studies (SGS) is charged with the responsibility of providing that guidance for the University graduate community. The previous version of this document is now 10 years old. It is time for the update that follows.

This document should be seen as a set of "best practices," that is, a distillation of what we have learned at SGS from observing both highly successful and less successful supervision. We have concluded that there are some general guidelines, policies, and suggestions that are likely to help make the thesis experience a rewarding one for students and supervisors as well as ensure successful completion. These Guidelines provide direction on choosing a supervisor, establishing a supervisory committee, and maintaining a productive working relationship among all three. They point to the respective responsibilities of students, supervisors, and graduate units (departments, centres, and institutes). They also provide advice on reducing and solving problems that may arise. The Appendices contain a list of resources including related websites, and a checklist that summarizes our suggestions about what students and supervisors should clarify before entering into a formal relationship.

Many people assisted in the preparation of this document. In particular, I would like to thank Berry Smith, Vice-Dean, Students, at SGS. Thanks are due also to Heather Kelly and Jane Alderdice of SGS, Helen Slade (Student Life) for valuable contributions, and Liz Smyth (Vice-Dean, Programs) and others for editorial advice.

It is our hope that these Guidelines will lead to excellent supervision.

Brian Corman Dean

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Introduction

At the University of Toronto, doctoral programs require original research and a written thesis that is defended at a Final Oral Examination. Many master's programs also require the student to do research and write a thesis. Fundamental to these programs is the idea of "supervision": a graduate faculty member (or occasionally more than one) takes primary responsibility for helping the student learn the craft of research and proceed successfully to the degree. These Guidelines have been written to help graduate students, faculty supervisors, and graduate administrators by describing best practices in graduate supervision. Our hope is that a clear understanding of responsibilities and expectations by all participants in the supervisory process will reduce potential problems and optimize the experience.

Research degrees at the University of Toronto are offered in many programs, extending across the full range of humanities, social sciences, physical sciences and engineering, and life sciences; therefore, it is not surprising that there is considerable variation in supervision across the University. At one extreme, students interact and receive guidance from supervisors and others in the group daily; at the other, students are seen as essentially independent researchers who learn and operate alone, receiving only occasional guidance.

Regardless of the local culture, there are policies, general guidelines, and suggestions that should inform good supervisory practice in all disciplines. These Guidelines attempt to collect best practices together in one place. We hope all graduate students and faculty consult them on more than one occasion; though not everything about graduate supervision can be covered, there is much here that should be helpful throughout the program of each graduate student.

Good graduate supervision can be recognized by a number of characteristics. It should inspire and guide students to reach their full scholarly potential. It should provide an environment that is supportive yet stimulating. It should enable students to learn the essential methodologies, concepts, and culture of their discipline, and perform research of high quality and significance. It should introduce them to the wider context of the discipline and the relevant communities of scholars, and help position them for future careers both within and outside academe. It should foster a strong sense of academic integrity. And it should help students successfully navigate the journey through their program with a clear understanding of the appropriate requirements, rules, and procedures, and with any emerging problems handled in a timely fashion with compassion and clarity.

The success of good supervision is a shared responsibility. It depends on both student and supervisor communicating well, being tolerant and understanding, and each holding the other to high standards. The graduate unit (department, centre, or institute) also plays a role, providing clarity and consistency of expectations, upholding academic standards, administering the program fairly and effectively, and intervening where necessary to help resolve problems. These Guidelines are intended to help all participants fulfil their roles and to ensure that the supervision of graduate students at the University of Toronto is of the highest quality.

This edition borrows heavily from the previous (2002) version, but has seen substantial reorganization, rewriting, and updating. New material deals with special circumstances such as cultural differences and accessibility issues, and includes several scenarios that may help in addressing problems.

Choosing a Supervisor

The three most critical choices facing a student pursuing a research degree such as a PhD are the institution, the program, and the supervisor. These three are not independent: some students know with whom they want to work, which determines both program and institution. Some students know exactly what research question they wish to pursue, which may determine both institution and supervisor. But most apply to a particular program at a particular institution, where there may be many potential supervisors. Some programs assign a supervisor at the start of the program or later, but in most cases, students need to choose a supervisor who will be their mentor, director, and evaluator for the next year or two in the case of a research master's, or the next few years in the case of a doctoral program. In many programs, students are only accepted if they can find a willing supervisor, so this may have to be done before the student arrives on campus.

The student-supervisor relationship is a key factor in determining a successful and satisfying doctoral "apprenticeship." When it works well, students not only learn the craft of research scholarship, but also gain an advocate who will speak on their behalf, are welcomed into a network of professionals, maybe acquire a lifelong colleague and friend, and experience the deep satisfaction of academic work and the creation of new knowledge. When it does not work as well, students may lose their enthusiasm for research as a career and abandon their pursuit of a higher degree. So what can be done to help ensure that the choice of supervisor is a good one? Clearly, the potential supervisor should be highly qualified in the expected area of research. But there are many other factors that can affect the success of the relationship.

Here are some suggestions for how you as a student might find some answers:

- Look up online information on potential supervisors. Check their bios on their graduate unit's website: many faculty make their CV available, and this will tell you about their research interests, their publication and other academic activities, their grant support, what other graduate students they have supervised, and how busy they may be on activities away from their lab or office. Remember, however, that faculty compose their own CVs, so you may not find all of the information that is important to you in making a decision!
- Check other online sources: use your favourite search engine for potential supervisors, investigate any blogs, discussion groups, or social networking sites they may have in order to get a sense of who they are.
- If you are applying from another institution, check with professors you know who might be aware of faculty in your area of interest—they could offer valuable insights to help you evaluate potential supervisors.
- Contact the unit's graduate office (visit in person if possible) and talk to the graduate coordinator (the faculty member responsible to the chair or director for the graduate program) and/or the graduate administrator (the administrative staff member assisting the graduate coordinator). These people can be an invaluable source of information about the program and the faculty.
- Check the website or CV of the potential supervisor, or check with the graduate administrator in the department, to identify graduate students who are currently being supervised or who have recently graduated. Talk to them and let them know you are thinking of becoming the supervisor's student, and ask them for comments on the style of supervision, what sort of person the supervisor is, whether there are or have been any

- issues, and so on. Do this in person if you can—information may be more forthcoming over a pizza and drinks than over email!
- If you can, visit the graduate unit and arrange to speak face-to-face with potential supervisors.

Here are some questions you might want answers to before you choose:

- What previous supervisory experience does your potential supervisor have? Faculty are usually self-taught in the art of supervision, starting with their own experience and learning as they go. With a novice supervisor, you might want to ask how supervision was handled in their own doctoral program. With an experienced supervisor, you should be able to consult previous or current students.
- How many graduate students does a potential supervisor have? Compare this number to others in the same graduate unit or discipline. High numbers are more common in the sciences. They may mean a high-profile successful researcher and supervisor, but could also mean you get less direct supervisory attention and a more impersonal, standardized program. Small numbers are not uncommon in the humanities; in any discipline they could mean you get to interact with your supervisor one-on-one more often, but may also mean you have few colleagues to talk to, particularly in small graduate units.
- How long does it take students to graduate with this supervisor? How does this compare with the graduate unit norm? Do the majority of students need extensions (i.e., take more than six years when entering with a master's degree)? Though the graduate unit may not be able to provide specific and detailed information, it should be able to indicate whether times are unusually long or short. You may also be able to glean this information from the potential supervisor's CV if it lists starting and finishing dates for supervised students.
- Is there any consistent history of students failing to finish their degree with this supervisor, or finishing only with difficulty after a history of conflict? Again, this information will not be on a CV, but the graduate office or other students may be able to tell you.
- Are there any personal characteristics or circumstances (either on your part or the
 potential supervisor's) that might make it difficult to establish trust and respect in the
 relationship? Are you prepared to discuss these and try to resolve them early in the
 program?
- What is the supervisor's role in providing financial support? You should find out what the graduate unit's policy is on funding doctoral (or research master's) students. Particularly in the sciences, support in the form of research assistantships is usually available from supervisors' research grants (in some units, this is the sole support). Ask the graduate office whether your potential supervisor has appropriate grants to do this. You might also want to find out whether the supervisor has historically provided support if you don't finish before other funding ends.
- If you anticipate significant research expenses, what is the expectation for covering them in your program? Research programs in the sciences usually need substantial equipment and supplies. In all disciplines there may be travel or field expenses. Does your potential supervisor have sufficient grant funds to support the research? How much, if any, of these expenses are you expected to cover? In any program, travel to present at conferences should be expected; can and will your potential supervisor help?
- Is your supervisor willing to help you find a suitable job after graduation? For some students, this is not important, whereas others may expect useful assistance. Check the

supervisor's presence on the web and social media; if possible, talk with students who have graduated. The CV may indicate how actively involved the supervisor is in national and international communities within the discipline, and whether they have the scholarly or professional status to be of real help. If possible, ask your potential supervisor directly what you can expect.

- Is the "culture" of the supervisor's operation one where students are expected to be independent, rarely meet with the supervisor, and work on topics that are not part of their supervisor's research program? Or conversely, would you mostly be part of a team, doing a prescribed part of a larger project, be expected to report weekly, and operate with little independence? This varies not only across disciplines, but even within single programs. You should make sure you would be comfortable within the culture.
- Is the potential supervisor going to be reasonably available for the duration of your program? Are they intending to retire soon, or leaving for another position? Do they have a significant administrative responsibility, and if so, how might that affect their ability to supervise effectively? Are they frequently away from campus, or planning to be away during a research leave?
- Are you a student with personal academic needs and concerns that could impact your ability to carry out the planned research or otherwise affect your proposed program? For instance, you may have family responsibilities, health or disability issues, or special travel needs. If so, you may want to have discussions with potential supervisors and the graduate coordinator to discuss your particular circumstances. (See also Scenario 8 below for a discussion of accessibility issues.)

You may not find satisfactory answers for many of your questions, but awareness of them may help you anticipate and minimize problems down the road. If you can meet with your potential supervisors, you could also address some questions in the next section to help with your decision.

Clarifying Expectations

Successfully navigating the four to six years of the typical doctoral program requires a combination of goodwill, collegiality, flexibility, and rational decision making on the part of both student and supervisor. However, problems sometimes arise when the expectations of both parties differ, but this is only discovered late in the program. For instance, the supervisor may claim senior authorship on all publications arising from the laboratory, but does not reveal this to the student, who, after consulting with students in other laboratories, comes to believe the student should be senior author. Unacknowledged expectations can also differ from those of the graduate unit or SGS.

A requirement of SGS is that there must be a meeting at least once a year of the student and supervisory committee at which the student is expected to demonstrate satisfactory progress. The supervisor and student may have a mutual unspoken understanding that such a meeting is not really necessary – until suddenly the supervisor becomes aware that the student is way behind in the research, decides this is not going to work out, and wants the student out of the program. But this is unfair to the student—who should have received plenty of warning and had opportunities to improve performance—and unfair to the graduate unit, who may have been able to assist in various ways if they had known about a growing problem. Such problems can be minimized if expectations, including the regulations that must be followed, are made clear as early as possible in the program.

Students should expect, and supervisors should provide, enough "quality time" at the beginning of the supervisory relationship to discuss and clarify not only expectations, but also the reasons behind these expectations and their degree of flexibility. We recommend that the most important and least flexible expectations should be set down in writing as a form of "contract" or "memorandum of understanding." This could be as formal as an actual printed document signed by both parties (see the Checklist in Appendix 2 at the end of these Guidelines for an example), or as informal as an email summary of what was discussed at a meeting. Such a document can serve as a useful reminder of what was agreed, and can be important if there are future problems. It should be revisited and updated periodically after discussion between student and supervisor.

Some questions and topics that might be covered in initial discussions between student and supervisor are:

- Frequency and modes of contact. Are regular meetings required? How often? Who schedules them? Is the student expected to bring a written report, or present orally? Are regular meetings one-on-one or group meetings with other students? What about informal meetings—is there an "open door" approach or does the student need to book an appointment?
- How should non-scheduled communication be handled (e.g., setting up appointments, notification of temporary absence, lateness for meeting, etc.)? Land line, cell phone, email, dropping by the office, or other means? Does it matter? How soon should responses to email, for example, be expected?
- Where and when is most of the work to be carried out? In the graduate unit, in the library, at home, or elsewhere? Where does the supervisor normally expect to be if contact is needed? What are expectations for "normal working hours"? Weekends, holidays?
- What are timing expectations in terms of major milestones—courses, comprehensives, thesis proposals, supervisory committee meetings, research objectives, paper submission, conference presentations, drafts of thesis, and so on? Good practice is to plan a timeline for the total program at the beginning and then revise periodically.
- How will the thesis topic be decided upon, and when? This varies among disciplines and graduate units, but should be understood at the beginning.
- How is feedback on progress achieved? Graduate units should require formal written reports on annual committee meetings, but what about less formal meetings? It is good practice to have a written record for any significant feedback that requires some action from the student and/or supervisor.
- What is the expected "turnaround time" on drafts of written material such as thesis
 chapters, papers, conference presentations, grant proposals, etc.? Two to three weeks is a
 reasonable upper limit under normal circumstances. If there will be abnormal delays, how
 will this be conveyed to the student? What alternatives are there if the delay would be
 unreasonably long?
- If the research will be done mostly in a laboratory, what is the lab "etiquette"? In large labs, who is responsible for what? Is there necessary preparatory training, and how and when will this be done?
- What are expectations concerning publications and conference presentations during the thesis work? Experience in presenting scholarly work is an important part of graduate training, and makes students more competitive in scholarship competitions. How will conference expenses be paid for?

- Intellectual property issues. These are complex and the subject of another set of SGS guidelines available on the SGS website.
- What opportunities will there be to meet others in the field and begin to build academic networks? How will the supervisor assist in this, and how much is up to the student?
- How and when will the supervisory committee be formed?

Responsibilities

Success in a research master's or doctoral degree depends primarily on the student. Other parties share in the responsibility, however, and foremost amongst these are the supervisor and the graduate unit responsible for the program. To a lesser extent, but still important, are the student's supervisory committee members. In this section we outline some of responsibilities, both explicit and implicit, of these principal parties.

Student

Clearly, in order to graduate, any student in a graduate program must fulfill the degree requirements of the program and abide by the general and degree regulations of SGS. Doing so is your responsibility. But a high-quality graduate student experience should be much more than simply getting the degree. Ideally, students should graduate with a passion for learning and research, a respect for academic colleagues, a network of valuable contacts, a deep understanding of academic integrity and other professional standards, positive feelings toward the supervisor, program, and institution, and a skill set useful in a wide range of related careers. Optimizing these depends not just on the academic environment, but also on you and your relationships with the other parties. Some of the more important student responsibilities are:

- Becoming familiar with, and adhering to, the rules, policies, and procedures in place in the graduate unit, the School of Graduate Studies, and the University as outlined in resources such as graduate unit websites or handbooks and the <u>SGS Calendar</u> and <u>SGS</u> website.
- Being aware of and conforming to the timelines and deadlines associated with many parts of the program such as registration, candidacy (for doctoral programs), committee meetings, and thesis submission.
- Preparing a research plan and timetable for the program of study. A good approach is to
 work with your supervisor or advisor to formulate a timeline for the whole program, noting
 important milestones and deadlines such as: establishing a thesis topic; completing a
 literature review; achieving intermediate research goals; attending conferences, doing
 seasonal fieldwork, publishing papers; completing the research; analyzing data; and
 completing drafts of the thesis. You can usefully revisit this plan at annual committee
 meetings or more often, and revise it as appropriate.
- Ensuring that meetings with your supervisor and other committee members actually occur. You should not always rely on others to arrange meetings; though many supervisors schedule and insist on regular meetings, others may be less proactive. The student shares equal responsibility for making sure that progress, results, and plans are discussed. In the best supervisory relationships, there is adequate opportunity to discuss more than the week's results: again, you share responsibility in making this happen.
- Establishing an appropriate supervisory committee. How much say you have in choosing committee members varies across graduate units, but ideally both student and supervisor approve of, understand, and are comfortable with the choices. Though timing depends on

the culture of the graduate unit, this should be done as early as is reasonable, certainly no later than the end of the second year of study in doctoral programs. In many graduate units, particularly in the sciences, supervisory committees are formed as early as initial registration in the program. In others, they may be constituted after a research proposal or comprehensive exam is completed. For some research master's programs, a supervisory committee is also required. Check the graduate unit regulations.

- Letting the supervisor know how you can be contacted, when you will be unavoidably absent (e.g., due to illness or to attend to family obligations), and informing your supervisor of anything significant that may affect your academic progress or that of others. If you are a member of a group, for instance, in a large laboratory you will also have responsibilities to others in the group, including keeping them informed of matters that may affect them.
- Keeping your supervisor or, if necessary, your graduate coordinator informed if there are emerging problems in the supervisory relationship.
- Behaving in an appropriate way that contributes positively to the atmosphere, culture, and productivity of the research group and/or supervisor. Successful supervisory relationships are synergistic, with both student and supervisor benefitting more than they would without it. Both share responsibility in making it so.
- Acquiring the necessary technical, health, and safety skills for undertaking the proposed research and adhering to the ethical practices appropriate to the discipline.

Supervisor

A faculty member's primary task as a graduate supervisor is to guide and inspire his or her students to reach their scholarly potential. At the same time, supervisors must help ensure that their students know and comply with the rules and regulations of the University. Over the course of the graduate program, the supervisor may be mentor, guide, teacher, rule enforcer, collaborator, and judge. Fulfilling all these sometimes conflicting roles is a challenge, particularly in the absence of any formal training for the task! Good supervisory practice includes:

- Guiding the student in the selection and planning of a meaningful and appropriate research topic that can be successfully completed within the normal time limit for the degree program.
- Ensuring that students have an understanding of the relevant theories, knowledge, and background literature, and the methodological and technical skills necessary for the research.
- Establishing with the student a realistic timetable for completion of the program, preferably including a number of milestones to measure progress along the way.
- Providing adequate opportunity and a positive environment for discussion and constructive criticism of ideas, research plans, research results, and thesis drafts as the research progresses.
- Providing sufficient and appropriate guidance and commentary on progress to help ensure successful completion of the program. This should include:
 - establishing regular meeting times for discussion and review of progress
 - o being reasonably accessible for unscheduled meetings
 - o keeping track of progress and investigating any concerns

- Ensuring that a supervisory committee is established in accordance with graduate unit practice and regulations. This should be done as early as possible in the program, and no later than the end of the second year.
- Ensuring that the committee members meet together as a committee with the student at least once a year, that the meeting is meaningful and helpful, and results in an annual written report of the student's progress.
- Making arrangements to ensure continuity of supervision during leaves or extended periods of absence.
- Being aware of, and ensuring the student is aware of and abides by, all relevant policies and requirements for both the academic program and the research (see Policies and Other guidelines in Appendix 1).
- Ensuring the student understands the need for, and what is meant by, the highest standard of academic and scholarly integrity both in coursework and research.
- Assisting and encouraging the wider professional development of the student by means such as:
 - o participation in seminars and colloquia
 - o attendance and presentation of work at local, national, or international conferences
 - o publication of work in appropriate journals
 - o taking advantage of the numerous offerings provided by the University for professional development, including SGS's Graduate Professional Skills (GPS) Program
- Helping the student in the transition from degree program to employment; for example, by:
 - o providing advice on career options, including those outside academe, the state of the job market, how to prepare a CV, and strategies for launching an academic or other professional career
 - o introducing professional colleagues and assisting in establishing a network of contacts
 - o being willing to write letters of reference and communicate with relevant contacts
- Ensuring that the research environment is safe, equitable, and free from harassment and discrimination.
- Avoiding personal or business relationships that may constitute a conflict of interest.
- Being open, honest, and fair with the student when academic performance is not meeting expectations. While dealing with inadequate academic performance can be difficult, it is in no one's best interests to prolong a program of study when success is unlikely. (See section on Problem Solving.)

Supervisory Committee

All doctoral students should not only have a supervisor to assist them through their program, but also a supervisory committee. This is a formal requirement for a PhD at the University of Toronto, but many graduate programs also establish supervisory committees for research master's students—a useful practice. Supervisory committees not only help ensure academic standards in the discipline through their evaluative role in the required annual committee meetings, but can and should provide considerable additional value. Committee members should be able to provide expertise that complements and expands on that of the supervisor. They can act as a valuable sounding board for discussion of ideas emerging in the research. And in cases where relationships with the supervisor are less than ideal, they can provide advice, mentoring, and, if necessary, mediation in problem solving.

Consequently, supervisory committees are most valuable if they are established as early as feasible in the student's program, if the members are chosen carefully, and if both student and committee members are able and willing to interact more frequently than the necessary annual meeting.

Formally, the graduate unit is responsible for monitoring the progress of doctoral students through the supervisory committee, as follows:

- A supervisory committee should consist of the supervisor and at least two graduate faculty members, which are usually, but do not have to be, from the graduate unit responsible for the program. Interdisciplinary topics often benefit from the presence of a committee member drawn from another graduate unit.
- The supervisory committee must meet with the student, as a committee, at least once per year to assess the student's progress in the program and to provide advice on future work. This meeting should be substantive and rigorous, not a brief, casual one only held to satisfy regulations. Meetings should be more frequent if there are significant questions concerning progress and performance.
- The committee must prepare a formal report of its assessment, detailing its observations of the student's progress, and its recommendations.
- The student must be given the opportunity to respond to the committee's report and recommendations, and to append this response to the committee's report.
- Copies of the report must be given to the student and filed with the graduate unit.
- The supervisory committee is also responsible for advising the graduate unit that a doctoral thesis is ready to proceed to examination (though see Scenario 3 later in this document). This means that the committee should be involved in advising when and if the research is complete and adequate, reading and giving feedback on drafts of the thesis, and approving the final draft as ready for examination.

Though it is ultimately the responsibility of the graduate unit to ensure a committee is chosen, choice of committee members is best done in discussion between supervisor and student. Some points to consider in choice of committee members are:

- Their field of expertise: can they add value to the student's research program?
- Will they be around and available for consultation and meetings throughout most of that program?
- Will they be approachable?
- Can they be objective enough to help if problems arise? Since committee members can be important to help if things go wrong, it is good practice to avoid having committee members that have close personal relationships or other potential conflicts of interest such as being a junior member of the supervisor's research team.
- Is there a good balance? Do their areas of expertise cover a sufficient range? Can a strong personality be matched by others willing to speak up?

Though the relationship between student and supervisory committee member is typically far less close than with the supervisor, some of the earlier suggestions for choosing a supervisor may be useful when thinking about prospective committee members.

Graduate Unit

All graduate students at the University of Toronto have a "home" graduate unit (a department, or extra-departmental unit such as a centre or institute), which is the unit responsible for the program of study in which the student is enrolled. This responsibility not only includes managing the graduate program(s) and maintaining the appropriate academic standards, but also ensuring that students in the program receive high-quality supervision and effective support in other matters. The person responsible in each graduate unit is the graduate chair, usually the chair or director of the unit, but in most units much of the day-to-day responsibility for managing the program and advising its students is delegated to a faculty member acting as graduate coordinator (though the person may be listed in the unit by another title such as associate chair, program director, or program coordinator). Also in most units, administrative staff assist in the managing of the graduate operation. Students should get to know the administrative staff—an invaluable resource for information, advice, and assistance in all graduate matters—and consult them first in case of problems that cannot be resolved between student and supervisor.

Responsibilities of the graduate unit include:

- Making available, through appropriate media, clear and understandable information about program requirements, regulations and procedures, the faculty and staff responsible for the graduate program, available financial support, and graduate faculty members and their areas of research expertise.
- Having procedures in place to connect students and potential supervisors, and to allow and/or ensure a change in supervisor in the unlikely event that this becomes necessary.
- Ensuring that the graduate unit's funding policy is applied fairly and consistently, and that scholarships and other financial support are disbursed in a fair and equitable manner that is consistent with that policy.
- Providing mechanisms to assist students with the transition into their new program, or through major steps such as the beginning of research or thesis writing. Examples include:
 - o assigning senior graduate students as mentors
 - o arranging for a temporary faculty advisor if choice of supervisor is not immediately available
 - workshops and orientation sessions for both new and continuing students, which might cover:
 - program policies and requirements
 - areas of faculty expertise for research supervision
 - expected performance and timelines for completion of degree requirements
 - intellectual property issues including publication and authorship
 - scholarship/funding information
 - policies regarding the proper conduct of research, sexual harassment, race relations, safety and workplace regulations
 - procedures for complaints and appeals
 - availability and procedures concerning teaching assistantships
 - resources to help with teaching and other professional skills
- Ensuring and maintaining an effective communication system with graduate students.
- Providing appropriate workspace for its students.

- Ensuring that approved supervisory committees are established by the appropriate deadlines (see *SGS Calendar* for timings).
- Ensuring that the student's supervisory committee meets at least once a year with the student, that this meeting is substantive, and that a written report of this meeting containing sufficiently useful detail is given to the student and filed in the official student file with the graduate unit.
- Providing mechanisms for resolving problems that may arise between graduate students, supervisors, and/or members of the supervisory committee, including funding issues.
- Establishing a Graduate Department Academic Appeals Committee (GDAAC) to review formal academic complaints from students.
- Ensuring a safe, equitable, and fair working environment for students, and informing them of all relevant safety and work regulations.
- Being sensitive to individual academic needs and concerns that may arise, for instance, with international students, students with disabilities, or students with family responsibilities.

Problem Solving

For both student and supervisor, the path toward successful completion can sometimes become difficult. Problems can arise in many ways, though most involve academic, personal, and/or financial issues. These Guidelines are in good part a recipe for avoiding problems: good match between student and supervisor, clarity and reasonableness of expectations, and awareness and fulfillment of responsibilities by all parties should help. If problems do arise, here are some general suggestions and resources to aid in resolving them (more specific problems are addressed in Scenarios below):

- Take early action. Though this is obvious, it is all too easy to avoid confronting difficult situations and hope things will get better. They sometimes do, but often don't. Solutions are usually simpler and easier to effect before the problem escalates and positions harden.
- Try to be objective and rational. Find the root cause of the problem—it may not be what is obviously being presented.
- Problems are rarely completely one-sided: solutions often need compromise and flexibility.
- Someone else has undoubtedly had a similar problem: don't feel alone. Communicate, seek advice, and take advantage of others' experience.
- Seek resolution at as low a level as possible: there are informal and formal appeal processes, chains of command, and so on, but going higher generally means more time, complexity, and cost.
- Remember that there is a real power imbalance in the supervisory relationship: students may not feel able to speak freely and may worry about recriminations. Committee members and the graduate coordinator may be able to help, but can be perceived as part of the "power group." Be prepared to go outside the graduate unit for assistance in difficult cases.
- If a problem cannot be resolved between student and supervisor, either or both can consult committee members, the graduate coordinator of the program, the chair or director of the graduate unit, and SGS staff including Student Service Officers, the Director of Student Services, and the Vice-Dean of Students. Students may also want to

talk to other students, and the Graduate Student Union representative(s). There are also many services offered by the University including Counselling and Psychological Services (CAPS), Accessibility Services, the Ombudsperson, and skilled personnel dealing with crisis response and issues of student academic progress, safety, sexual harassment, race relations, and so on (see Appendix 1, Resources). Contact the Director of Student Services at SGS for more information.

Problems can also arise between a student and a supervisory committee member, and the guidelines above may be useful here too.

Cross-Cultural Issues

Graduate students (and faculty) at the University of Toronto increasingly come from a variety of cultural backgrounds. Both student and supervisor should be aware of the possible impact of culture on the supervisory relationship to ensure an optimal experience. An excellent resource is the University of Western Ontario's *Western Guide to Mentoring Graduate Students Across Cultures* (see Appendix 1), from which the points below are distilled.

- Beware of cultural generalizations. Try to be open and positive about differences. Supervisors can show interest in the student's experience and identify areas in which mentorship is needed.
- The student and supervisor may have differing assumptions about the nature of research. For example, the supervisor may expect considerable initiative in research, whereas the student may assume the task is to find evidence to support the hypothesis identified by the supervisor.
- Cultures can vary in expected behaviour associated with power differences. This can lead to students appearing overly formal or deferential, or the supervisor expecting a formality the student is not used to. Students from cultures with a high deference to and respect of authority may treat administrative staff, technicians, and more junior students less respectfully than their supervisor because of an ingrained need to differentiate.
- In cultures with high power differences, students may be highly reluctant to question their supervisors or other faculty, whereas in cultures with low power differences, frequent challenges and constructive criticisms may be the norm.
- Cultural norms can affect the importance of "saving face" in relationships. Students, for example, may be unwilling to ask questions lest it reveal a lack of knowledge on their part, or because questions might cause their supervisor to lose face by implying that he or she had not explained something adequately.
- Communication styles may differ: some cultures value indirectness, others directness.
- In Canadian academe, rules are usually considered to be reasonable, are to be followed, and apply to all. In some cultures, rules can be questioned and individual exceptions may be expected. In others where unreasonable rules are the norm, people may be used to breaking them when they can get away with it.
- Cultural differences and expectations even exist between one university or division and another, and may take the unsuspecting student by surprise. Adapting to a new culture, including the expectations of the discipline, at the same time as getting used to a new university environment, may take a year or two and can be stressful and confusing. Supervisors have a responsibility to help mentor their students during this transition, and

students should try to identify behaviours that are affected by cultural differences and be prepared to modify them.

Potential misunderstandings can often be minimized by strategies such as depersonalizing and anticipating the issue; for example, by supervisors saying that they know some students may be uncomfortable asking questions, but questions are expected and welcome.

Finishing Up

When the program requirements have all been met, and the research more or less completed, the task of writing the thesis arrives. This can be for some students (and supervisors) a stressful time, particularly if expectations have not been clarified earlier. We will offer a few observations that may ease the passage through the final phases of the research degree.

Writing the first draft of a thesis can itself be problematic. Typical "writer's block" may be compounded by a fear of failure, a reluctance to make public the fruits of labour, a lack of experience in writing, through apparently excessive demands of supervisory committee members, or a host of other reasons. Much has been written on writing, and this is not the place to try to be comprehensive. But a few thoughts:

- The thesis is a transient stage in scholarly development. It may be required for the degree, but it is not (or should not be) the culmination of an academic career. Optimally, it should be of a quality and quantity sufficient for a clear acceptance at the Final Oral Examination so the student can earn the degree and move on to the next stages of his or her career. There is life after the thesis!
- Writing a thesis is much easier if started early. Particularly in the sciences, much of the
 work may have been written up and published during the program as scholarly articles.
 Because these are usually briefer and more constrained, and frequently multi-authored,
 they may be less intimidating to produce and provide valuable learning experiences.
 Indeed, more and more theses are becoming compilations of published material with
 added introductory and concluding chapters. Where prior publication is not the norm, it is
 still good practice to write, for example, a literature review as part of the thesis proposal
 that can then form the basis of an introductory chapter.
- There are numerous resources available on and off campus to help with writing. The
 <u>English Language Writing Support (ELWS)</u> programs operated by SGS can be particularly
 helpful.

Prompt and constructive feedback on thesis drafts is one of the primary responsibilities of the supervisor; ideally, the supervisory committee should also be available to read and comment on later drafts of the thesis. How drafts are handled should be discussed well in advance (see Clarifying Expectations, above). Students should provide sufficient warning that a draft is about to appear, and allow sufficient time for reading and comments, which can depend on the supervisor's other commitments, how lengthy the draft is, and how much it has changed from previous versions.

What is a reasonable turnaround time for drafts? Expecting a thorough reading and commentary for a lengthy chapter in less than a week would probably be unreasonable. Equally unreasonable would be for a student not to hear back for more than two or three weeks. The supervisor being away on research leave should not preclude timely reading of drafts or sign off

on the final version in these days of electronic communication; if it does produce a problem, an alternate acting supervisor should be found. If drafts have been read, and comments acted upon, reading of the final version should also be possible within two or three weeks of submission at most.

When the thesis is ready for examination, the graduate unit is responsible for notifying SGS and nominating both an external appraiser and the composition of the Final Oral Examination committee (see the <u>SGS Calendar</u> for details). However, the supervisor and student are usually expected to provide suggestions for both. SGS regulations require external appraisers, who function to assure quality control and the application of international standards to be appropriately experienced, to be sufficiently knowledgeable in the field and to be "at arm's length" from both student and supervisor.

Scenarios

1. As graduate coordinator, I have a student in my unit who has decided he/she can no longer work with his/her supervisor after three years. What are the graduate unit's obligations and responsibilities here?

Once a student is admitted to the University and registers, the University through the graduate unit has essentially entered into a "contract" with the student and has a "duty of care" among other responsibilities. In this case, the graduate unit must do everything reasonable to ensure the student does not have to withdraw because of lack of supervision. Attempts should first be made to address any underlying causes of the problem to see if the supervisory arrangement can be saved. If this does not work, a change of supervisor may be necessary. Ideally, the supervisor agrees to this, though arriving at that agreement can sometimes be challenging. Ultimately, the graduate chair has the authority to assign and reassign supervisors (and committee members), though clearly must be careful in doing so.

It is always best if any breakdown in supervisor-student relationships is brought to the attention of the graduate coordinator and/or chair as soon as possible, since it is much harder to resolve the situation when positions regarding issues have become entrenched, and possibly word may have spread. Often, a supervisory committee member may be willing to take over supervision. Unfortunately, many graduate programs do not have large numbers of faculty either qualified or willing to take over supervision of another's student. The student may need to compromise, if necessary modifying the thesis topic. In extreme cases, particularly when the student is close to completion, a "nominal supervisor" can be appointed. Such a supervisor may not necessarily be an expert in the field, but should be experienced in mentoring students and capable of being objective often in the face of heightened emotions; in this situation the remaining committee members become even more important in providing expert guidance. In rare cases, if the student is unwilling to compromise, and no faculty can be found to supervise the student and/or the topic, the student may have no option other than to withdraw from the program. In all cases the pros and cons of any arrangements should be made clear to and discussed with the student, preferably by the graduate coordinator, in a non-threatening manner—ideally, the student agrees to the new arrangements willingly.

2. In my graduate unit, students are expected to find a supervisor by the end of the first session. If a student has failed to find a supervisor, can we force the student to withdraw?

This would not be a problem where admission was conditional upon finding a supervisor in the first term (as is the case in some graduate programs where students undertake a lab rotation before choosing a supervisor). But in other cases it should be remembered that graduate units do not have the authority to terminate a student's registration in a program; they can only request this to SGS. Whether such a request would be approved depends in good part on how the requirements of the program have been made clear to students. As in Scenario 1, the graduate unit has an obligation to provide supervision to any doctoral-stream student it admits. In this case, only if it were explicit that part of those requirements is the identification of a willing and suitable supervisor, and that the outcome of failure to do this will be a request for termination of registration, could a case be made for termination. Even then, we would expect the graduate unit to have various mechanisms for helping students find a supervisor, and to have done its best to facilitate the process. In general, we believe best practice in those programs that expect a supervisor to be identified at the beginning of the program is to require agreement from student and supervisor prior to admission; admitting a student without assurance that there will be supervision can lead to stress, uncertainty, and problems when a supervisor does not materialize.

3. I am ready to defend but my supervisor disagrees and wants me to produce "one more" publication. Can I submit my thesis for examination without my supervisor's approval?

Though the simple answer is "yes," we would strongly advise against this. It is best practice that a student's thesis be approved by the supervisor and supervisory committee as ready to defend. After all, they are responsible for upholding the academic standards of the program, and (should) have been chosen for their expertise and experience. And if you disagree with their advice, you should reflect on the possibility they might be right. In this case, is the disagreement over the *content* of the thesis, or is it a matter of having enough publications to secure an appropriate post-doctoral position? Is your supervisor really trying to help, as opposed to simply trying to enhance his or her CV? Though you should ideally have discussed expectations concerning publications and length of program earlier than this, you might want to check around to see what normal expectations are in your graduate unit and discipline. What is the average time to degree in your unit? What is the average number of publications produced by a PhD student in your program? Though these data may not be formally collected and available, the graduate office should have a reasonable idea of what they are.

And though a student may elect to proceed to examination without the full support of the supervisory committee, remember that committee members also play a role in your Final Oral Examination. Following the question period of the oral defence, all committee members will be asked to vote on whether the thesis and its defence are acceptable. If there is more than one negative vote or abstention at this point, the thesis examination will be adjourned. Though someone with unreasonable bias should not serve on the examination committee, the onus would be on you to show evidence of such a bias; the default assumption would be that they were doing their job responsibly. So, it is risky to move forward without the full support of your supervisory committee. Keep in mind also that it is in everyone's best interest to see a PhD candidate succeed. Try to reach mutual agreement with your supervisory committee regarding what changes need to be made. Incorporate these changes as best you can, remembering at the same time that this is *your* PhD and that it has to be yours to defend through the examination process. Be aware that your supervisor and committee members are expected to encourage doctoral students to

finish up when it would not be in their best interests to extend their program of study; at the same time, if the thesis or research needs more work, they should point this out. And if after considering all this, you still feel there is a problem, please do talk to your graduate coordinator or program chair/director, or consult us at SGS, before proceeding.

4. A supervisor is moving to another university. What is the responsibility of the graduate unit towards his or her graduate students?

First, graduate students are registered in a graduate program, not with a particular supervisor. Thus, the graduate unit has prime responsibility in ensuring they are not disadvantaged if their supervisor becomes unavailable for any reason. When a faculty member moves to another institution, some students may elect to move as well, and seek admission at the new institution. Others, particularly in later stages of a doctoral program, may wish to remain. In this case, unless the supervisor maintains a graduate faculty position at the University of Toronto, the graduate unit must do what it can to assist the student to find a replacement supervisor. The student is of course free to maintain an informal relationship with the departing supervisor, but all doctoral-stream (research) students registered at the University of Toronto must have a supervisor of record who is a member of the graduate faculty. This may require compromise on the part of both student and new supervisor, and occasionally creative solutions; we recommend that students and supervisors consult their graduate coordinator, and that the graduate coordinator consult SGS in more complex situations.

The converse of this situation is when an established faculty member moves to U of T and wishes to bring graduate students along. If such students are in the early stage of their program, they should apply for admission to the relevant graduate program and become U of T students. At later stages, other arrangements may be possible and preferable, such as becoming an international visiting graduate student. This allows international graduate students to conduct research at U of T for up to one year. International visiting graduate research students must pay an administrative fee, health insurance, and incidental fees, but not tuition fees, and may not enrol in courses.

If the student has not yet achieved candidacy, another option to consider is the Joint Placement for Doctoral Students. This is intended for exceptional doctoral students to pursue research opportunities and acquire research experience in two countries at an early stage in their careers. A doctorate is earned at the lead institution, with involvement in the collaborator institution being recognized by a notation on the transcript and diploma of the lead institution.

5. In my graduate unit, a faculty member has decided that his PhD student, who is in the fifth year of his/her program, is not doing well and is unlikely to finish. The faculty member is unwilling to continue supervising the student and wants him/her removed from the program. What do I as graduate coordinator do?

There are a number of concerns here. First, individual faculty cannot remove students from programs. Requests for termination of registration must come from the chair of the graduate unit and must be approved by the SGS Vice-Dean, Students (see the SGS website for details). Second, you need to determine whether the student has in fact failed to progress in a satisfactory manner and should lose good academic standing before any such action is contemplated. This is

usually straightforward if specific program requirements have not been met, such as failed courses or failed comprehensive exams. The achievement of candidacy is also an important milestone in a doctoral program, and should be accompanied by a careful assessment to determine if a student can successfully complete the requirements for a PhD in a reasonable period of time. If the concern is in either the research or thesis writing phase, the key is to ensure that properly constituted supervisory committee meetings have occurred, and reports, to which the student must have had an opportunity to respond, have been filed. If the most recent meeting did not indicate a serious problem, then a meeting should be held as soon as possible. If it did indicate a problem, the student should have had a clear explanation of the problem in the report, with sufficient detail to enable him or her to attempt to address the concerns. A follow-up committee meeting needs to be held, preferably within two or three months. If the student is absent from two consecutive meetings with reports of unsatisfactory progress, it is unlikely that any request for termination of registration will be approved by the SGS Vice-Dean, Students.

Also important is whether appropriate measures have been taken to help the student overcome problems. The committee reports are an essential component in this, but not the only one. It should be clear that the supervisor has made the student aware of any problems and has given the student adequate opportunity to resolve them. Advice and help from committee members is highly desirable too, particularly where the student and supervisor are at odds. And the graduate unit may also have a role in helping resolve problems and ensuring the conditions for satisfactory progress are not compromised in ways outside the student's control.

If it turns out the problem is not entirely the student's, the chair has a responsibility to try to ensure continuity and quality of supervision, either by convincing the present supervisor to persevere, or if all else fails by facilitating a change in supervisor.

6. I am very unhappy with the quality of the supervision I have been receiving. My supervisor seems unwilling to return drafts of my thesis until several months later, and when he/she does the comments often seem to be the opposite of suggestions made earlier. Now the supervisor is insisting that more research needs to be done. It seems I will never be able to finish. What can I do?

First, it would be wise to try and evaluate the situation objectively and dispassionately. The later stages of a PhD program can be stressful and emotionally charged, and criticism and seeming delay can too easily be misinterpreted as hostile and negative. Are you submitting drafts in reasonable pieces, with prior warning, and at times when your supervisor is not overwhelmed with other responsibilities? We recommend a two-week turnaround, but that is for chapter-sized drafts when the supervisor is aware they are coming, has perhaps seen them before so the revisions are not extensive, and is not desperately working to a deadline for a major grant proposal. If the criticisms seem arbitrary and inconsistent, remember that minor changes to prose can sometimes have major impacts, and may well reverse meaning and change the context so that what may have been alright before is now questionable. And as drafts improve, less important problems begin to be more noticeable. If you still think the criticism unreasonable, you might show your draft to other students whose opinion you respect, or ask one of your committee members their opinion.

Certainly the question of whether a student's research results are sufficient for the thesis requires a value judgment, and supervisors may sometimes err on the side of caution. Remember

that the quality of a thesis reflects on the supervisor as well. Check other recent theses in your discipline (they should be readily available on the University's T-Space). Seek the advice of other committee members. The point in a student's program when the research is complete should have been discussed and agreed to at a formal supervisory committee meeting; if this did not occur, or if the issue arises and cannot be resolved when the thesis draft is being read, the student should call a full meeting of the committee to seek their judgement. Occasionally, there is disagreement and lack of resolution even within the committee; in this case, or if you have reasonable grounds to believe committee members or your supervisor are acting not in your best interest, you should discuss the matter with the graduate coordinator and/or chair. They could for instance attend a committee meeting, change the committee composition, or add an extra faculty member not previously involved in the case.

7. A PhD student under my supervision has shown some behaviour recently that worries me and is not what I associate with a successful graduate student. What should I do? Can I talk openly to the student about it?

Early action is almost always preferable to letting a potential problem fester. But some care needs to be taken and, depending on the nature of the unusual behaviour, you might want to consult your graduate coordinator or us at SGS first. When you do talk to the student (as you will have to), remember you are in a position of power and your student may have various reasons for being cautious or worried about talking to you. Be objective, not judgmental, and do not try to diagnose the problem particularly if it seems at all complex. Restrict your approach to pointing out that you have observed behaviour that concerns you, and describe that behaviour calmly and impersonally. Ask if the student is aware of anything that is interfering with his/her ability to be a student.

It is alright to discuss a problem if the student is willing. You can say, "I do not know what the problem is, but I have noticed that [describe the observed behaviour]. I don't need to know the details; my job is to ensure that you are aware of any resources that might help you." If you suspect a health or disability issue that the student has not disclosed, you can begin by initiating dialogue. You can say, "I've noticed that you have difficulty with...", or "Have you struggled with... in any of your classes?" Discuss how the student's challenge or difficulty may impact their program and mention resources available to the student such as Accessibility Services, Health Services, Counselling and Psychological Services, or Health and Well-being (if employment is involved). You can even refer the student to these Guidelines!

8. I am worried that I might have a disability-related issue, and I am reluctant to talk to my supervisor in case it changes how they feel about me and think about my work. What do I do?

Contact Accessibility Services for a consultation (details are on their website). They will maintain confidentiality. This will help determine whether there is an appropriate accommodation that may help your situation. Some accommodations may need your collaboration with people in the graduate unit, such as your supervisor or course instructors; others may not. If accommodations are appropriate, an accessibility counsellor can help discuss with the necessary people if you agree to this. But you remain in control. You decide what accommodations to seek, if any, but in deciding, you should be aware of the consequences of your decisions. Remember that accommodations are negotiated, so not all accommodations

requested by you or Accessibility Services may be approved. Your supervisor and graduate unit must ensure that your request does not jeopardize the delivery and essential standards of the program, nor your responsibilities as a graduate student in that program.

9. As graduate coordinator, I am dealing with a student who is registered with Accessibility Services, but is not making satisfactory academic progress even though all recommended accommodations are in place. I am at a loss as to what more I can do. What are my responsibilities here?

In cases of formally recognized disability, the University is required to provide reasonable accommodation. But remember that the purpose of these accommodations is to provide an opportunity for the student to meet the academic requirements of the program at the necessary standard. "Accommodation" does not mean the University has to lower its academic standards. Accommodations must also be "reasonable," that it causes no "undue hardship" in terms of funding or supervision (no excessive costs). If you have questions concerning the interpretation of these terms, please consult SGS or your Faculty.

If a student is unable to succeed despite the accommodations (and if the academic requirements are genuine and integral to the disciplinary standards), other options should be considered. For instance, a leave of absence may be helpful (graduate units can approve first leaves of up to a year, though longer or additional leaves need SGS approval). In some cases, an alternative program might be more suitable and could be discussed with the student. And where success seems unlikely despite everyone's efforts, you may need to discuss with the student the option of withdrawing from the program. A student who withdraws can always reapply at a later date to the same or different program, or to a different institution, if circumstances have changed.

Appendix 1

Resources

Note that the URLs for resources may change, though the online version of these Guidelines should be reasonably up-to-date. Please contact the <u>Director of Student Services</u> if you notice broken hyperlinks.

People and Facilities

- SGS Director of Student Services
- SGS Vice-Dean, Students
- Ombudsperson
- Health Services
- Accessibility Services
- Counselling and Psychological Services
- Anti-Racism and Cultural Diversity Office
- Community Safety Office
- Sexual and Gender Diversity Office
- Sexual Harassment Office
- Status of Women Office

Policies

- SGS Calendar
- Grading Practices Policy
- Conflict of Interest
- Code of Behaviour on Academic Matters
- Policy on Ethical Conduct in Research
- AODA (Accessibility for Ontarians with Disabilities Act)

Other

- The SGS Intellectual Property Guidelines
- Graduate Professional Skills (GPS) Program at U of T
- Ombudsperson's website: <u>general resources</u> containing tips on conflict resolution, troubleshooting, and effective complaining
- The Canadian Association for Graduate Studies produced in 2008 their <u>Guiding</u> Principles for Graduate Supervision in Canada
- UWO's Western Guide to Mentoring Graduate Students Across Cultures
- The three federal granting agencies (CIHR, NSERC, and SSHRC) adopted in 2011 the Tri-Agency Framework: Responsible Conduct of Research

Appendix 2

Checklist for Students

I chose my supervisor (or agreed to the choice) after appropriate review of supervisor options

I have had sufficient initial meetings with my supervisor and have discussed:

Potential or actual thesis topic

Funding

Applying for scholarships and awards

Teaching assistantships

Availability of space

Expected hours of work

Timelines and major milestones including anticipated completion time

When and how a supervisory committee will be chosen

Nature of guidance

Frequency and style of meetings

Who arranges formal meetings

Methods of informal communication

Turnaround time for major questions, drafts of thesis chapters, publications, or conference presentations

Intellectual property (IP) issues such as authorship on publications, conference presentations

Other IP issues such as industry involvement, thesis publication embargoes, patents

I understand and have discussed with my supervisor my program requirements including (not all may be applicable):

Required courses

Extra courses

Language/breadth requirement

Comprehensive/field/qualifying exam

Seminar attendance

Ethics review

Thesis proposal

Other (specify)

Appendix 3

Checklist for Supervisors

To establish a collegial environment, I will:

Create a positive work and learning environment free from discrimination and harassment (See Appendix 1 for University policies).

Provide advice on professional development and both academic and non-academic career opportunities.

Be available to my student as the first point of contact for conflict resolution or during moments of transition.

I will undertake the following academic mentoring activities:

Assist the student in navigating their program of study and the University community.

Assist the student where needed about the requirements for their degree, policies of the University (such as the <u>Policy on Ethical Conduct in Research</u> and <u>Code of Behaviour on Academic Matters</u>) and School of Graduate Studies as well as resources and referrals to campus services.

Advise and approve, if appropriate, all aspects of the student's academic program including courses, comprehensive/qualifying/field examinations, language, seminar, internship/practicum, thesis proposal requirements, etc.

Help the student formulate an appropriate research project. Discuss the required knowledge and skills to undertake the desired research program, the expected time to completion as well as the level of independence that is expected.

Meet regularly to provide constructive input into the student's research project and provide an assessment of the student's progress.

Discuss issues of authorship and intellectual property early in the student's program referring to the <u>School of Graduate Studies' Intellectual Property Guidelines for Graduate Students and Supervisor at U of T and the SGS Intellectual Property Awareness Form.</u>

I have discussed funding issues with my graduate student including:

Level and duration of research-related funding that will be provided to the student including support for conferences and travel for research. Assist with review of grant applications, as appropriate.

Availability of research and study space as well as the protocol for requesting additional resources or equipment.

I have discussed academic program issues with my graduate student including:

How and when the supervisory committee will be formed, the role of the supervisory committee as well as my role as supervisor in selecting appropriate and eligible members.

Ensure that the supervisory committee meets a minimum of once per year to assess the progress of the graduate student.

Frequency, length, and format of individual and/or group meetings including the preferred method of communication and timelines for feedback.

Roles and responsibilities of others involved in the student's research program (e.g., postdoctoral fellows, lab managers, fellow students, etc.) and "lab etiquette."

Expectations for student work hours and vacation.

Any extended absences (i.e., sabbatical, research leave, conference travel, etc.) for myself or others critically involved in the student's research and a plan for continuity of supervision.

How an external appraiser will be selected for the student's Final Oral Examination.