Ph.D. Program Guidelines in
Communication Sciences & Disorders

Revised Oct 2012
Admission Requirements and Application Procedures

Students accepted at the Ph.D. level should provide evidence of the general abilities necessary to carry out advanced research (e.g., academic excellence, research experience and/or potential, originality, innovation, motivation). Applicants should also be capable of describing, in good expository form, a specific problem or topic in human communication sciences and disorders that they would like to investigate for their thesis, if accepted into the PhD program.

General correspondence regarding admission of Ph.D. students will be administered by the Graduate Program Coordinator and the Graduate Program Director (GPD). Based on the interests and goals of the prospective student, the GPD will direct research inquiries to faculty members working on related topics, in order to establish a potential supervisory relationship between the student and a full-time faculty member of the SCSD. Prospective students may also communicate directly with a faculty member in order to establish a supervisory relationship prior to submitting an application to the PhD program. Although it is not necessary for prospective students to establish an understanding with a potential supervisor before submitting an application to the PhD program, undertaking this process in advance will facilitate the processing of the application and is often beneficial to the applicant.

All complete applications to the Ph.D. (and M.Sc. Research) program will be reviewed by a Research Admissions committee, usually consisting of all full-time research faculty in the department. This committee will evaluate each applicant for their admissibility to the desired program, for their quality and research potential, and for the availability of a faculty member with appropriate expertise who is willing to act as the student’s supervisor. Research admissions are decided on a case-by-case basis at a faculty meeting designated for this purpose.

Applications may be received at any time of the year, although students must apply no later than February 1st for Fall admission, October 1st for Winter admission, and January 1st for Summer admission. Note that students who apply for the February 1st (Fall admission) deadline have the best opportunities to receive departmental recruitment funding, whenever available; all students who apply in this competition will be considered automatically for available funding.

Applicants will be informed of admission decisions, and all conditions related to their acceptance (e.g., level of admission, designated supervisor, funding, etc.), in a letter from the Director mailed within 6-8 weeks of the application deadline. The decision of the Admission committee is not subject to appeal.

Role of the Supervisor, Student Committees, and Graduate Program Director

The research training of students registered in the PhD program is guided by the students’ supervisor, student committees, and by the Graduate Program Director, as follows:

Supervisor

The thesis supervisor or co-supervisors work directly with the student in planning their research program, arriving at a thesis topic, carrying out the research, and writing the thesis. Normally, the supervisor independently approves most decisions made in the course of formulating the thesis topic, the research design, procedure, data analysis and the final draft of the thesis.

Student committees

The progress of each student is simultaneously followed by departmental committees which must be consulted by the student/supervisor at critical stages in the development of the student’s research program (e.g., to approve the initial program; to approve the thesis proposal; to approve the final draft of the PhD thesis prior to its submission to the Thesis Office). There are three types of committees: program, comprehensive exam, and thesis. The composition of these committees may be the same or they can vary for each student, although each committee will always include the student’s supervisor and at least one other faculty member who holds a faculty appointment in the SCSD.
When students first enroll in the Ph.D. program, a **program committee** should be formed in the first two months of the student’s program. The program committee meets at least once a year to set up the student’s program and to review progress. For example, the program committee must formally approve the student’s initial program of study, including optional coursework, and establish a timeline for completing these objectives. Records and minutes of these meetings should be placed in the student’s file by the student’s supervisor.

A **comprehensive exam committee** is struck for each student during the first semester of the comprehensive year, after the student and supervisor have selected the student’s MAJOR and MINOR topic areas (see below for details).

After the student successfully completes the comprehensive exam, a **thesis committee** is formed to reflect the types of expertise needed to inform the student’s thesis research. The thesis committee must formally and unanimously approve a written thesis proposal and should meet as required by the student/supervisor. The supervisor should keep minutes of all meetings and insert a written copy of feedback provided by the thesis committee in the student’s graduate record. Before the student is allowed to formally submit the thesis to the Graduate and Postdoctoral Studies office, all members of the thesis committee must be given time to formally review and approve the thesis for submission, and complete a departmental thesis evaluation form.

It is the joint responsibility of the student/supervisor to ensure that program and thesis committee meetings are held, and that written records of feedback and decisions made at these meetings are placed in the student’s graduate record (or alternatively sent to the GPD). In cases where the student, supervisor, and/or committee members cannot agree on the proper course of the student’s research program, the Graduate Program Director and/or Director may be called in to mediate the disagreement to the satisfaction of all parties. For example, a compromise research approach could be suggested, the committee membership could be altered, the student could be required to change the research topic, or a new supervisor or co-supervisor could be assigned to the student, as needed.

**Graduate Program Director**

The GPD oversees student research within the department and acts as a liaison to the Graduate and Postdoctoral Studies Office. His/her duties include: administration of research student admissions; dealing with special problems raised by students or supervisors; communicating and interpreting departmental and university research policies to students and faculty; and ensuring that university offices are apprised of graduating students and external examiners at appropriate times. The GPD is also responsible for tracking and formally evaluating the research progress of each thesis student in the department on an annual basis; this evaluation, which is conducted during a face-to-face meeting with the student and their supervisor, forms an important part of the student’s academic record while at McGill.

**Conflict Resolution Procedures**

In the event of a conflict between a student and his/her supervisor, the following steps should be followed and clearly documented (e.g., dates of meetings, attendees, etc.):

1. Identify the problem in a discussion with your supervisor. In many cases, an informal discussion may resolve a conflict quickly.
2. If this does not resolve the problem, contact the GPD who may be able to mediate a settlement of the conflict (should your supervisor be the GPD, contact the Director of the School).
3. If the GPD is unable to resolve the issue, contact the Director of the School. If the relationship between the student/supervisor is no longer appropriate for continued supervision, the Director will attempt to make alternative arrangements for supervision by another faculty member (in keeping with Graduate & Postdoctoral Studies guidelines).
4. If all of these steps fail (or if your supervisor is the School Director), you may contact the Associate Dean (Graduate & Postdoctoral Studies) or the University Ombudsperson for assistance. Contact information for these individuals is available in the Calendar of Graduate & Postdoctoral Studies or on their website (www.mcgill.ca/gps).

PhD Program Description

Required elements:

1. Residency

The minimum residency requirement in the Ph.D. program is to the end of the PhD 4 year (normally, students who hold an M.Sc. with thesis upon admission to the PhD program enter in PhD 2 year). For students who hold a Bachelor’s degree, or a Master’s degree without thesis, registration will depend on the individual student’s background and experience. Regardless of registration status upon entering the program (PhD 1 or 2), all students admitted without having previously completed a Master's thesis or its equivalent will be required to complete the additional requirements of the Qualifying Year, listed below. According to GPS guidelines, students are not permitted to register in a PhD program after the PhD 7 year. An approximate timetable for completing the PhD requirements is provided below.

2. Coursework

Each PhD student must successfully complete the following courses:

(1) 6 credits in graduate-level statistics (e.g., Psychology 650/651 or similar); and

(2) two 3-credit PhD research seminars offered by the SCSD (Advanced Research Seminar I & II, or similar course code).

Additional course requirements are possible and will depend on the background and individual needs of the student; these decisions are made jointly by the student/supervisor in consultation with the program committee. Those students who have not completed a Master’s thesis (or equivalent) will normally undertake the Qualifying Year of the PhD program, which consists of a research project and additional, preparatory coursework (see description of Qualifying Year Option below).

3. Comprehensive Exam

The main objectives of the Comprehensive Exam are to:

(1) familiarize the student with literature in Communication Sciences and Disorder and to assess their breadth of knowledge in the field;

(2) evaluate the student’s ability to synthesize and critically review the research literature, and to formulate a set of logical arguments in writing;

(3) judge whether the student is suited to proceed as a candidate for the PhD degree and to undertake a research thesis.

Exam Format - The general format of the Comprehensive Exam is as follows: the student/supervisor will identify one MAJOR and two MINOR areas of research from the list below, which allow the student to become familiarized with a range of problems in the field of Communication Sciences and Disorders; a comprehensive
exam committee is struck which chooses three questions corresponding to the selected topic areas, which are
provided in writing to the student; the student conducts independent research and analysis of each question in
reference to the empirical literature; the student prepares three separate papers (details outlined below) which
respond appropriately to each of the three questions. The comprehensive exam is evaluated by the committee
who render a pass/fail judgement of each of the three papers. A detailed evaluation of each paper will be
conducted by at least 2 members of the committee. Under normal circumstances the pass/fail decisions will be
reached by a consensus of the committee; when consensus cannot be reached it will be a majority decision.

Topics – One MAJOR and two MINOR topics must be selected from the following list:
1. acquired neurogenic language disorders
2. acquired neurogenic speech (motor) disorders
3. normal speech production and perception
4. hearing science
5. developmental language disorders
6. developmental speech/phonological disorders
7. normal language development
8. normal language processing
9. deafness and hearing impairments
10. communication disorders in special populations

Normally, the MAJOR area is a topic most closely related to the intended thesis topic of the student, whereas
the MINOR areas are selected freely by the student/supervisor in areas of interest and importance to the
student. However, it is mandatory that one of the three questions addresses an adult population, one of three
addresses a child population, and both normal and disordered populations are included among the three topics
selected. The SCSD holds a pool of questions corresponding to each topic area which is refreshed every 2-3
years (or as necessary). The questions provided to each student must be unique and cannot be under
consideration by other students. At the discretion of the department, questions may be reused after a period of 5
years.

Exam period requirements – During the exam period, it is the responsibility of the student to undertake
independent review of the literature which allows them to develop an insightful and empirically-defensible
response to each question in a form of a 15 page essay. Each paper must not exceed 15 pages (excluding
references; 11 point font; double-spaced; 1 inch margins; APA formant).

It is critical that the student demonstrate the ability to select and critically integrate the relevant literature
pertaining to each question and to adopt a position based on their own analysis. While it is expected that the
student will complete the exam independently, he/she may periodically consult members of their comprehensive
exam committee to discuss their research topic(s) and/or the general structure of their paper(s). The role of
supervisor and the committee is to provide guidance; they are not obliged to give detailed input on the
comprehensive exam paper(s) until they are formally submitted by the student. Analogous to submitting a
review paper to a journal as a sole author, the guidance from your supervisor, committee or peers should not be
at a level that would warrant co-authorship.

Submission/Evaluation Procedures (See Timeline on page 7). The entire comprehensive exam must
be submitted to the committee no later than six months after the student receives the questions (e.g., May 1st if
the questions are received in November; September 1st if questions are received in March). The three papers
may be submitted in a successive manner as they are completed, or all three papers may be submitted by the
deadline. The submission plan is made by the student in consultation with their supervisor and should be
reported to the GPD within a month of receiving the questions. If there is difficulty coming to a decision, the
committee and the GPD should be consulted. Any changes in the submission plan after the initial decision
should also be shared with the committee and the GPD. This information is needed to track student progress.
Students who lack experience with literature review or scientific writing often progress more efficiently with their
2nd and 3rd papers after receiving evaluation and feedback on a first paper. The comprehensive exam
committee is charged with providing feedback on any submitted paper(s) within three weeks of submission
(unless special circumstances are identified by the committee in advance). If the three papers are submitted in a
successive manner, it is strongly recommended that the MAJOR paper be completed last since students are required to present this paper orally after completing all comprehensive exam requirements. The scientific merit of each independent paper will be evaluated by the committee, leading to a pass/fail decision for each paper. The committee will complete an evaluation form and also provide written comments to the student for each paper. In all cases, the evaluation form will be provided to the student in advance and the completed forms will be shared with the student during the evaluation process. The student will meet with the committee to discuss the evaluation in all cases (pass, revise, fail) unless the student and the committee agree that a meeting is not needed. It is the supervisor’s responsibility to set up the evaluation meeting and to give written feedback (evaluation form + comments) to the student.

**Revision Procedures** - Before rendering a pass/fail decision, the committee may request revisions to any or all three papers to improve their quality. For example, revisions may be necessary when the student does not exhibit sufficient mastery of the topic area, when relevant literature has been neglected, and/or for stylistic reasons (among others). When revisions are required, it is the responsibility of the committee to arrive at a consensus about what actions is necessary for the student to achieve a “pass” for the paper; this feedback will be provided to the student as part of the written comments provided in the evaluation process outlined above. The student must submit a revised paper which adequately responds to the concerns raised by the original submission by the end of the “Revision period”, which is two months after all 3 papers have been submitted and evaluated (see the time line for the Comprehensive Year – page 7). The revised paper must be accompanied by a succinct letter written by the student outlining how the major concerns raised by the committee were addressed in the revised paper. Also, any issues raised in the evaluation that did not result in change(s) in the paper should be explained, e.g. they were beyond the scope of the paper or were no longer relevant once you re-directed the focus. This letter should facilitate re-evaluation of the paper for the committee by providing a road map to new structure and content introduced in the revised paper.

In the case where the student chooses to submit their papers in a successive manner and revisions are required by the committee, the student is always allowed up to the end of the “Revision period” (typically, until the first day of the 12th month of the Comprehensive Year) to submit revised versions of all papers. The committee will render a pass/fail decision on the revised paper(s) within three weeks of final submission. No further revisions will be allowed to any paper at this stage.

**Oral Presentation** - When all three comprehensive papers have received a passing grade, with or without revision, the student must orally present their work in the MAJOR topic area to members of the SCSD. The oral presentation should take place within one month of passing the three comprehensive papers (approximately one year after beginning the comprehensive year). The oral presentation is a mandatory requirement which marks the completion of the comprehensive exam, although it will not be formally evaluated by the committee. The oral presentation should be approximately 30-45 minutes in duration and be tailored to a knowledgeable, lay audience.

**Comprehensive Failure Policy** - In the event of a failure of one of the three comprehensive papers (following revision), the student will be offered a supplemental exam question to test their knowledge in the same topic area in which the failure occurred. The student will receive a new question from the established list in the topic area and must submit a new paper within two months after the question is received (exam period requirements are otherwise the same as stipulated above). The student’s work will be evaluated strictly on a pass/fail basis with no opportunity to revise the supplemental paper. If the supplemental paper also leads to a failure, the student will be asked to withdraw from the PhD program immediately. If any two of the three comprehensive papers are judged to fail after the revision period, the student will not be offered a supplemental exam and will be asked to withdraw from the program.

**Comprehensive Exam: Step-by-step procedures and timeline**

An information session will be held for students and faculty by the Graduate Program Director (GPD) early in the fall and winter semesters. The GPD will give an overview of the comprehensive process, answer questions, offer advice and seek feedback to clarify and improve the comprehensive experience.
a. The student registers for course SCSD 701 (which has no credit weight) during their first semester of study in the program (or first semester after successfully completing the Qualifying Year Option). This will be referred to as the "comprehensive year".

b. During the first two months of the comprehensive year, the student/supervisor jointly identify a MAJOR and two MINOR areas of research from the established list. The supervisor ensures that the major and minor topic areas do not overlap and touch on all necessary topics (adult vs. child; normal vs. disordered; see above).

c. Based on the topics chosen, a comprehensive evaluation committee is struck consisting of three faculty members, at least two of whom must be full-time faculty members in the SCSD. The student and the supervisor must agree on the committee membership.

d. The committee meets privately to select three questions corresponding to the MAJOR and MINOR areas from an established list. The questions chosen represent the student’s comprehensive exam and cannot be changed once provided to the student.

e. The committee provides the student the three questions in writing by the beginning of the third month of the comprehensive year (i.e., by November 1st for students admitted in September, March 1st for students admitted in January). A copy of the evaluation form will be provided along with the questions.

f. During the six-month exam period, the student works independently on the comprehensive papers, receiving only general feedback from the supervisor and/or committee members regarding coherence of written work throughout writing. Students are strongly encouraged to meet with their committee if any of the assigned questions are problematic, e.g. difficult to interpret, target literature seems too narrow or too broad, difficulty adapting the scope of their essay to the page limit of the paper or any other issues that may arise, Students are advised to address such global issues early on (within the first month) to avoid serious delays in their progress.

g. The student submits all three papers six months after receiving the questions (e.g., by May 1st for September admissions, September 1st for January admissions).

h. The committee must evaluate and provide written feedback on each paper to the student within three weeks of receipt. The evaluation form (and additional comments) should be completed for each paper independently including a decision of pass, fail, or requiring revision. Any comments/notes made on the paper by individual faculty will also be shared with the student. Students will meet with their committee to discuss their evaluation.

i. If revisions are required, the student must submit the revised paper(s) before the end of the revision period, accompanied by a cover letter outlining how the student responded to concerns raised by the committee. The committee will evaluate the revised paper and make a pass/fail judgment.

j. Should the student fail one of the three questions of the comprehensive exam after revision, they will be offered a supplemental exam question from the same topic area and must complete a new paper as stipulated above. They will be given two months to complete the supplemental exam and this will be evaluated by the committee on a strict pass/fail basis (without opportunity to revise). Should the student fail the supplemental exam, or fail at least two of the three questions of the comprehensive exam following the revision period, the student will be required to withdraw immediately from the PhD program. A grade of F will be submitted for the course SCSD 701.

k. Once the student has received a grade of "Pass" for all three questions, the student will give an oral presentation (ungraded) on the MAJOR area within one month of passing the written portion of the exam.
The Comprehensive Year

Student Receives Questions
(Nov 1st or Mar 1st)

(Sept or Jan)

Exam Period
6 months

- Identify topics
- Strike committee
- Choose questions

Submit Exam
(May 1st or Sept 1st)

Revision Period
2 months

Oral Presentation
(Sept or Jan)

First Evaluation

Final Evaluation
(If revisions required)
4. Thesis

As the final required element of the PhD program, each student will undertake independent research under the guidance of the supervisor and prepare an original PhD thesis. The student must play a principal role in developing the rationale and methods of the thesis, implementing the methods and data analyses, and must independently prepare the written thesis in accordance with published guidelines of the Graduate and Postdoctoral Studies Office.

Thesis Proposal - Prior to undertaking the thesis research, the student must submit a detailed, written thesis proposal to the student’s thesis committee for approval. There is no prescribed length to the thesis proposal, although it should minimally: provide the theoretical and empirical context for undertaking the study; describe a detailed set of methods to be used in the research; and, indicate how the data will be analyzed in relation to the research hypotheses.

Following submission of the written proposal, the student will give an oral presentation outlining their proposed research to their thesis committee. The presentation will be approximately 20 minutes and should touch on all of the basic elements that are required in the written proposal (outlined above). A question/discussion period with the committee will follow the presentation. The goal of the oral presentation is to discuss the proposed project with their committee and to guide the student in ways that will clarify and improve the conceptual and methodological aspects of the project. This is also an opportunity for the student to seek advice and input from their committee, thus students are welcome to raise issues/questions with the committee. Immediately following the presentation and interactive discussion the committee will discuss and evaluate the thesis proposal (without the student present) and may suggest revisions, as deemed necessary. The student's supervisor will take notes to summarize this discussion and will send a draft summary of the committee’s feedback (prepared after the meeting) to the committee to review and suggest changes. The draft summary will include a recommendation to either approve or to revise the proposal. The supervisor will compose a final proposal summary (incorporating any changes from the committee) that will be signed by each committee member to show that they confirm the status of the proposal (approve or revise). This document will be shared with the student and added to the student's academic record. The student may be required to revise or clarify their written proposal. In this case the revision would be reviewed by the committee; a second oral presentation is not required. A second proposal summary document (assessing the revised proposal) will be appended to the original proposal summary to show that the revised proposal was approved.

The thesis proposal must be approved by the thesis committee before the student initiates the research. As well, the student must ensure that the proposed research is ethically approved by all relevant boards and committees that govern where the research will be performed, and that they acquaint themselves fully with these ethical procedures.

Thesis Submission - Before the student can submit the PhD thesis to the University, a final draft of the completed thesis should be reviewed by each member of the student’s thesis committee for final approval. The thesis committee will provide the student written feedback, as necessary, on how to improve the thesis prior to submission. Once the draft thesis is approved by the committee, the student is free to submit the thesis to the Thesis Office for external and internal evaluation by the University. Deadlines for thesis submission, as well as guidelines for the format of the thesis, procedures for the Doctoral examination, etc., are those set by the Graduate and Postdoctoral Studies Office. Note that the School Director will not sign the thesis submission form for the student unless the student’s committee has fully approved the submission and they have completed a departmental thesis evaluation form.

1 The oral presentation of the thesis proposal will be required for new PhD students (entering Fall 2012) but we encourage current students to complete this as an optional requirement.
5. **Supplemental elements:**

There are diverse opportunities to expand the depth and breadth of your doctoral studies; the major ones are listed below. These elements are not required for degree completion but participation in these offerings will enhance your academic and professional development.

a. **Department Colloquia and Research Seminars**

Whenever possible, PhD students are expected to attend departmental colloquia and to participate in research seminars as an important complement to their research program.

b. **Teaching**

Students who have teaching as one of their goals will be encouraged to take opportunities to assist in teaching M.Sc. Applied students. The department will treat such teaching as a part of the learning experience of the student; discussion of aims and techniques as well as advice and criticism will be involved. Students may choose to enroll in a graduate level course on teaching as part of their coursework.

c. **SCSD Annual Research Day**

This annual event is opportunity to learn about the research activities and scientific accomplishments of SCSD students and faculty and to promote interaction and collaboration within the department. This event (typically held each November) is jointly planned by students and faculty to showcase both faculty and student research. Details will be provided at the beginning of each fall semester.

(Note: a research presentation is required for those students who have successfully completed the Qualifying Year Option project)

d. **Centre for Research on Brain, Language, and Music (CRBLM)**

All MSc and PhD students In SCSD are eligible for student membership in the CRBLM and need only to register on line to activate this membership at:

http://www.crlm.ca/centre/participation/register_student_member

The CRBLM supports student research development in many ways including:

CRBLM Student Research Day

This is an annual event sponsored by the CRBLM as an opportunity for students of centre members to present their recent research activities and to promote interaction within and across related departments at McGill, UdeM, UQAM and Concordia universities.

CRBLM Interdisciplinary Graduate Scientist Awards (IGSA)

Graduate student members (MA and Ph.D.) are eligible to apply for funds to pursue interdisciplinary research projects within the mandate of the CRBLM, either singly or in pairs. The purpose of the award is to increase the opportunities for interdisciplinary research and training for graduate students and to promote research that is of clinical, scientific and/or social significance.

CRBLM Research Seminars
Twice monthly, research seminars are scheduled to provide a forum for centre members and local researchers to discuss on-going research activities to centre members and their students.

CRBLM Reading groups
Each academic year, students organize a bi-weekly reading group to discuss a broad topic of interest. A recent group focused on neuroplasticity and learning.

CRBLM Workshops
How-to and informational workshops are organized during the year. These workshops focus on a wide range of areas from research tools and techniques (Matlab, EEG, acoustic analysis) to preparing students for grant writing and academic and industry employment preparation.

e. Centre for Interdisciplinary Research in Rehabilitation of Greater Montreal (CRIR) www.crir.ca
Students enrolled at an affiliate university directed by a full CRIR member can become members of the CRIR General Assembly

The CRIR supports student research development through
- CRIR Student Research Days
- CRIR Research Seminar Series
- Possibility of participation in cross-disciplinary research projects focused on rehabilitation (aiming to contribute comprehensively to the autonomy and social integration of persons with physical disabilities, including communication disorders).

Ph D Program : Qualifying Year Option

Overview
High-calibre students who demonstrate all of the qualities necessary to enrol in the Ph.D. program, but who have not completed an appropriate Master’s thesis, may qualify for the Qualifying Year Option of the Ph.D. program. Typically, students considered for this option possess a Bachelor’s degree or Master’s degree (without thesis) in Communication Sciences and Disorders or a related field and provide evidence of a defined interest in human communication and its disorders. If accepted into this option, the student undertakes a qualifying year of study comprised of coursework and a research project (detailed below). Students must successfully complete all requirements of the Qualifying Year Option in their first year registered in the PhD program; if successful, they then proceed to the Comprehensive Year and complete all remaining required elements of the PhD program (see above). If performance in the Qualifying Year is judged to be unsatisfactory, the student will not be permitted to continue in the PhD program nor to enter the Comprehensive Year; in some cases, these students may be permitted to complete a thesis leading to an M.Sc. degree.

Qualifying Year Requirements

1. Coursework

The student must successfully complete the following courses:

(1) 6 credits in graduate-level statistics (e.g., Psychology 650/651 or similar);
(2) 3 credits in the SCSD Ph.D. research seminar offered during the winter semester (Topics in Communication Sciences & Disorders or similar).
(3) 6 credits in elective coursework (one full-year or two half-year graduate-level courses). The selection of elective courses will depend on the background and individual needs of the student and are chosen jointly by the student/supervisor. Students are expected to choose elective courses offered by the SCSD, except
for students admitted with Master's-level training in Speech-Language Pathology (non-thesis), who may register for elective credits either within or outside the department.

Note that candidates who successfully advance to the Comprehensive Year will have already completed all required courses in statistics; these students will only need to register for two additional SCSD research seminars and optional coursework, as stipulated in the PhD Program Description.

2. Research Project

The student’s aptitude for advanced research and continued candidacy in the Ph.D. program will be evaluated through a research project, to be completed and submitted to the supervisor by the end of the Qualifying Year. The purpose of the research project is to provide students an initial opportunity to: approach a small body of scientific literature with a well-formulated question or problem in mind; devise the rationale for implementing specific methods which address the question; obtain experience in the analysis and/or interpretation of data; and, report the research findings in good expository style in a format resembling that of a journal manuscript submission.

In terms of scope, the research project is meant to familiarize students with issues related to experimental design and analysis, and showcase the student’s ability to arrive at a reasoned explanation for a small set of data; the finished product is not necessarily expected to provide new or original insight into the question being investigated, to present a comprehensive treatment of the subject matter, nor to result in a publishable research article. As such, the scope of the research project may be considered analogous to that of an Honour’s thesis at the undergraduate level. The topic of the research project will be developed jointly by the student/supervisor, who will be exclusively charged with evaluating the student’s progress during the project.

The research topic may be assigned by the supervisor or devised by the student, and need not bear a close relationship to the topic developed for the Ph.D. thesis. Due to the restricted scope of the Qualifying Year project and strict guidelines for completing this element, research involving special populations or equipment/facilities not readily available to the student is highly discouraged. Students will receive formal evaluation on their progress from the supervisor at the end of the first semester and following final submission of the written paper (typically, at the end of the second semester).

Qualifying Year Research Project: Step-by-step procedures and timeline

a. The student registers for courses SCSD 685 and SCSD 686 (Research Project I & II - 3 credits each) in the fall and winter semesters of the Qualifying Year. In conjunction with the supervisor, the student begins immediately to identify the research topic to be investigated. A one-page overview of the topic (briefly summarizing the motivation for the research project and the approach to be taken) should be submitted to the supervisor for review by the end of the first month (e.g., October 1st for Fall admission, February 1st for Winter admission).

b. After a topic has been formulated, the student will review the background literature directly pertinent to the research question. This exercise is constrained by the scope of the research project and should address a similar range of articles as one would expect for a short published journal article. The student will then prepare a draft written proposal of the research project (approximately 10-15 pages, double-spaced), in which they describe and critique the background literature and outline the methodology of the experiment to be undertaken. The proposal should be submitted to the research supervisor as early as possible, but not later than the end of the first semester (e.g., December 15th for Fall admission, April 15th for Winter admission). The supervisor will evaluate progress leading to the proposal and assign a letter grade for SCSD 685.

c. Following approval of the draft proposal, students should be immersed in setting up and running the study, and/or analyzing and interpreting the collected data. Close interaction between the student and
the research advisor is encouraged at all stages of this activity.

d. Students will report their findings and conclusions in a final paper, to be submitted to the supervisor by the end of the second semester of the Qualifying Year (April 25th for Fall admission, August 25th for Winter admission). The final report should be written in APA format and not exceed 30-40 pages in (double-spaced), inclusive of references, tables, and figures. As a guideline, the paper should be structured in a manner resembling a research paper submitted to a peer-reviewed journal appropriate to the topic. The final submission will be evaluated by the supervisor and a letter grade will be assigned for SCSD 686.

e. After completing the project, students are required to present their findings in the SCSD annual research day, typically held each November. (See page 7 SCSD Annual Research Day.) The presentation will be a poster or short oral presentation of the project to the SCSD faculty and students. This presentation will not be graded or evaluated.

Students who successfully complete all required elements of the Qualifying Year will be allowed to maintain their registration status in the PhD program and will proceed directly into the Comprehensive Year. In the event of unsatisfactory progress or failure of required elements during the Qualifying Year, the student will be asked to withdraw immediately from the PhD program. In rare circumstances, a student whose performance during the Qualifying Year is marginal, or a student who “opts out” of this program, may be permitted to complete a M.Sc. thesis after withdrawing from the PhD program. In this event, following successful completion of all Qualifying Year requirements, the student would be transferred to the MSc Research program and register for one semester at the M.Sc. 2 level and complete 24 thesis credits (M.Sc. Thesis I & II, 12 credits each).

PhD Program – Time Guidelines

The expected timeframe for completing required elements of the PhD program is three to four years (depending on whether or not the student is entered into the Qualifying Year Option). A suggested timeline for completing all required elements is indicated below. These guidelines are approximate and serve only as a basic framework to assist students/supervisors in the planning and implementation of the student’s research training program, particularly in the early stages of the student’s program. This timeline is designed to be flexible and it is expected that most PhD students will design and implement a more detailed, individualized program of studies that meets their specific needs.

Qualifying Year (if admitted from a Bachelor’s degree or non-thesis Master’s degree)

- 2 semesters of graduate statistics (6 credits)
- SCSD research seminar (3 credits)
- Elective coursework (6 credits)
- Research project I & II (6 credits)
- Approval of research project proposal (by end of first semester)
- Submit research project report (by end of second semester)

Comprehensive Year (if admitted with a Master’s degree with thesis)

- Strike program committee & plan basic structure of research program (during 1st month)
- 2 semesters of graduate statistics (6 credits; if not completed during Qualifying Year)
- SCSD research seminar (3 credits)
- Comprehensive exam (SCSD 701)
• Choose one MAJOR and two MINOR topics + strike comprehensive exam committee (during first two months)
• Student receives questions from comprehensive exam committee (by 3rd month)
• Submit all three comprehensive papers (6 months after receiving questions)
• Revise comprehensive paper(s), if necessary (by 11th month)

PhD Thesis Year 1

• Give oral presentation of MAJOR comprehensive topic (during 1st month)
• SCSD research seminar (3 credits)
• Develop PhD thesis proposal and strike thesis committee
• Approval of PhD thesis proposal (by end of year)
• Optional teaching activities (from this point on)

PhD Thesis Year 2

• Complete Ph.D. research (data collection, analyses, writing)
• Submit PhD thesis