

## The Graduate Program in Chemistry: a Brief Guide for Students

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Welcome. This guide is intended to help graduate students understand the structure of the program. All questions should be directed to the supervisor, the Graduate Affairs Committee, or to the Graduate Student Ombudsman, Dr. Steve Reid. There is a great deal of information available for students on the website of the College of Graduate and Postdoctoral Studies ([www.usask.ca/cgps/](http://www.usask.ca/cgps/)). A Department of Chemistry Teaching Assistant Handbook will be made available to every student. Make sure you have one before you begin your work as a teaching assistant. Specific guidelines regarding the Ph.D. Qualifying Examination and the Ph.D. Comprehensive Examination can be found at [artsandscience.usask.ca/chemistry/graduate/current/](http://artsandscience.usask.ca/chemistry/graduate/current/).

Students are expected to take responsibility for understanding their program of study and to ask about aspects of the program they do not understand.

### All M.Sc. students are expected to

1. carry out novel research leading to a thesis to be defended in public;
2. complete a minimum of 9 credit units (c.u.) of coursework, achieving an average grade  $\geq 75\%$  and with no grade  $< 60\%$ ;
3. participate in the departmental teaching assistant program for 2 years, unless directed otherwise; and
4. fulfill the requirements of Chemistry 990.0, Chemistry 991.0, and GSR 960.0 (ethics course).

### All Ph.D. students are expected to

1. carry out novel research leading to a thesis to be defended in public;
2. complete a minimum of 6 – 15 credit units (c.u.) of coursework, achieving an average grade  $\geq 75\%$  and with no grade  $< 70\%$ ;
3. participate in the departmental teaching assistant program for 5 years, unless directed otherwise;
4. pass a Ph.D. Qualifying Examination;
5. fulfill the requirements of Chemistry 990.0, Chemistry 991.0, and GSR 960.0 (ethics course);
6. pass a Ph.D. Comprehensive examination before submitting a thesis; and
7. present a departmental seminar covering the complete thesis at about the time of submission of the thesis.

**Research:** All M.Sc. students must enrol in CHEM 994, and all Ph.D. students must enrol in CHEM 996, the course designations of the thesis research. The student will work with a faculty member or members on an independent research project which should be expected to be part of the faculty member's ongoing research program. Most students will have chosen a supervisor before beginning the graduate program. Changing supervisors during the graduate program is rare, and invariably results in setbacks for both the supervisor and the student. An advisory committee will be appointed to provide guidance and evaluate progress of research through a series of regularly scheduled meetings. Most students enrol in the M.Sc. program, but may transfer to the Ph.D. program during their second year if approval is granted by the advisory committee.

**Coursework:** Students enrolling in the M.Sc. program are expected to register for CHEM 801.6 in their first term unless given special permission to do otherwise. Students enrolling in the Ph.D. program may be required to take CHEM 801.6, as decided by their supervisor. Subsequent courses should be chosen in consultation with the supervisor and approved by the advisory committee. Course descriptions are available in the University Calendar or from the instructor. All students should register for CHEM 990 (Seminar), CHEM 991 (Literature Core Course), and GSR 960 (Ethics).

**The Departmental Teaching Assistant (T.A.) program:** Most graduate students are expected to participate satisfactorily in the T.A. program. This typically involves preparing for, demonstrating, and marking undergraduate laboratory exercises, but may also include leading tutorial sessions and other duties. Teaching is an excellent way for graduate students to reinforce their understanding of chemical principles, demonstrate their knowledge, and prepare for a career in teaching and supervision of other scientists. Part of the graduate student stipend is derived from teaching duties, and substandard performance in teaching can result in dismissal from the T.A. program, resulting in loss of income to the student.

**Stipends:** M.Sc. students are guaranteed a minimum stipend (derived from the research grant of the supervisor, and Departmental and/or College funds) for 24 months, assuming satisfactory progress in research, coursework, and teaching. Ph.D. students in good standing are guaranteed a minimum for 56 months. Continued financial support beyond the above timeframes must be discussed with the supervisor. The minimum stipend for M.Sc. and Ph.D. students is set every year by the Department. Scholarship holders should consult their supervisors regarding the terms and amounts of their stipend.

**Advisory committee meetings:** Meetings, which are required by the College of Graduate and Postdoctoral Studies, are intended to help the student complete the program efficiently. An advisory committee meeting must be held at least once a year. Normally, there will be a virtual advisory committee meeting held by the end of the first term in the program that involves the approval of future coursework and the proposed research to be conducted by the student. If there are any pressing concerns about the student's progress in coursework and/or teaching, this meeting may be held as an in-person AC meeting.

**For students who intend to complete a M.Sc.,** the first in-person committee meeting will typically be held shortly after the student has completed the first 12 months in their program. At this meeting the student will submit a written report of the research progress seven days before the scheduled meeting, and make a brief oral presentation of this report to the committee. Student progress in all aspects of the program will be evaluated. All subsequent meetings will follow a similar format, with

specific discussion of progress towards completion of the program, including preparation of the thesis. The 2<sup>nd</sup> in-person committee meeting should be held within 24 months of enrolment.

**For students who enter the Ph.D. program directly, a *Qualifying Examination*** will be their first in-person advisory committee meeting and must be completed, normally, in the first year of the program. Precise timing of the examination is determined on a case-by-case basis. Students admitted with *conditional* or *probationary* status will need to discuss with their supervisor and advisory committee the terms and conditions for removal of this status. The Ph.D. Qualifying Examination is an oral presentation of a research proposal that will lead to a thesis. The student is expected to demonstrate the necessary knowledge to pursue a Ph.D. A written report is presented to the advisory committee 2 weeks before the oral examination.

The student's second in-person advisory committee meeting will typically take place one year after the qualifying exam is completed. At this meeting the student will submit a written report of the research progress seven days before the scheduled meeting, and make a brief oral presentation of this report to the committee. Student progress in all aspects of the program will be evaluated. All subsequent meetings will follow a similar format, with specific discussion of progress towards completion of the program, including preparation of the thesis.

**For students in a M.Sc. program who intend to transfer to the Ph.D. program, a *Qualifying Examination*** will be completed during the second year of the program. Such a transfer must be discussed and approved by the advisory committee prior to the student taking the examination and will take effect only after the qualifying exam is completed successfully. Subsequent committee meetings should be held annually to assess student progress towards completion of the program.

The ***Ph.D. Comprehensive Examination*** must be completed within 40 months of starting the graduate program and involves the preparation of a mini-review of an important topic from recent literature, including suggestions for further research, which is then presented orally to the Department. More detailed descriptions of the Comprehensive and Qualifying examinations are available from the Department.

## **RECOMMENDED\* SCHEDULE OF IMPORTANT EVENTS IN A STUDENT'S GRADUATE PROGRAM**

**All students, all years:** register for term 1 and term 2 (T1 & T2) courses in September; for T2 classes in January; for summer courses in May (CHEM 994 or CHEM 996 only)

### **M.Sc. students**

#### **Year 1**

September: registration for program and T1 courses (CHEM 990, CHEM 994, GSR 960, and usually CHEM 801.6,); orientation

December: Virtual committee meeting, unless a formal in-person meeting is specifically requested by the supervisor, student, an AC member, or GAC chair.

January: registration for T2 courses, including CHEM 990, CHEM 991 and CHEM 994

May: registration in thesis research course for summer (CHEM 994)

August: earliest date for 2<sup>nd</sup> committee meeting

## Year 2

April: By this point student shall have chosen to either pursue M.Sc. thesis or transfer to Ph.D. program, in consultation with the supervisor and Advisory Committee. If not transferring, a committee meeting should be scheduled to discuss completion of the M.Sc. thesis.

May: registration in thesis research course for summer (CHEM 994)

August: latest date for 3<sup>rd</sup> committee meeting

## **Ph.D. students (transferring from M.Sc. program)**

Year 1 as above

## Year 2

April: earliest date for Qualifying Examination

August: latest date for Qualifying Examination

## Year 3

May: earliest date for Comprehensive Examination and 3<sup>rd</sup> committee meeting

August: latest date for 3<sup>rd</sup> committee meeting

## Year 4

December: latest date for Comprehensive Examination

August: latest date for 4<sup>th</sup> committee meeting

## **Ph.D. students (direct entry)**

## Year 1

September: registration for program and T1 courses (CHEM 990, CHEM 996, GSR 960, and usually CHEM 801.6); orientation

December: Virtual committee meeting, unless a formal in-person meeting is specifically requested by the supervisor, student, an AC member or GAC chair.

January: registration for T2 courses, including CHEM 990, CHEM 991 and CHEM 996

April: earliest date for Qualifying Examination, followed by 2<sup>nd</sup> committee meeting

May: registration in thesis research course for summer (CHEM 996)

August: latest date for Qualifying Examination, followed by 2<sup>nd</sup> committee meeting

## Year 2

August: latest date for 3<sup>rd</sup> committee meeting

Years 3/4 as Years 3/4 above.

\*If a student begins their program at a time other than September, then they should consult with the Department and supervisor about the timing of their program milestones.