



GRADUATE PROGRAMS IN CHEMISTRY

Student Handbook
2016–2017

<http://chemistry.gradstudies.yorku.ca>



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GRADUATE PROGRAM IN CHEMISTRY – YORK UNIVERSITY

The Graduate Program in Chemistry offers a wide range of study and research in analytical, atmospheric, biological, inorganic, mass spectrometry, organic and physical chemistry. Special opportunities are available in modern aspects of air pollution, mass spectrometry, protein identification and characterization, organic/organometallic/inorganic synthesis, catalysis, reaction kinetics and materials chemistry (with two Canada Research Chairs starting in July 2017). Our world-class facilities include two research centres: the Centre for Research in Mass Spectrometry (CRMS) and the Centre for Research in Biomolecular Interactions (CRBI).

RESEARCH FACILITIES

The research is carried out in three separate buildings: the Petrie Science and Engineering Building (PSE), the Chemistry Building (CB) and the Life Sciences Building (LSB). The Department is also well serviced by support facilities such as stores (PSE 002), a machine shop (PSE 006), an electronics shop (PSE 018A) and a glassblowing shop (PSE 016).

Research groups have access to several modern nuclear magnetic resonance (NMR) spectrometers (300–600 MHz), Fourier-transform infrared (FTIR) spectrometers, analytical gas chromatograph/mass spectrometers (including a selected-ion flow-tube spectrometer), modern laser and electrochemical facilities, scanning tunneling and atomic force microscopes, instrumentation for monitoring trace atmospheric constituents and a combinatorial chemistry facility.

PROGRAM ADMINISTRATION

Graduate Program Director	Prof. Gino G. Lavoie	145 PSE	Ext. 77728	chemgpd@yorku.ca
Graduate Program Assistant	Ms. Magy Baket	124 CB	Ext. 77724	mbaket@yorku.ca

GENERAL INFORMATION

- ❖ The information in this handbook is supplementary to the Faculty of Graduate Studies Calendar. Please read carefully the “Faculty Regulations” found in the Main Calendar (<http://gradstudies.yorku.ca/current-students/regulations/>). The Handbook is for information purposes only and rules/regulations described herein may have changed, or may change in the course of your studies in the Program.
- ❖ Correspondence and general enquiries pertaining to program requirements should normally be directed to Magy Baket, Graduate Program Assistant.
- ❖ Students are advised to follow registration dates, and Program and Faculty deadlines, and to inform the Graduate Program Assistant of any changes in status and study plans to ensure that correct procedures are followed and deadlines are met.
- ❖ It is very important to keep current on important dates. The Faculty of Graduate Studies online calendar is found at:
<http://gradstudies.yorku.ca/current-students/student-status/important-dates/>
- ❖ Students should frequently check their York U email account for important announcements and deadlines, scholarship notices, bursary applications, etc. Mailboxes are located in 124A CB and should also be regularly checked notices, paystubs, and other Program information.

RESEARCH SEMINARS

A series of lectures on various topics in contemporary chemical research are presented by the faculty, visiting scientists and graduate students. All graduate students are expected to regularly attend research seminars while registered as a full-time student. This is a great opportunity for you to expand your knowledge of chemistry to areas that you may not be familiar with, and to mingle with your peers and with faculty members. By attending those seminars, you will also observe and learn what it takes to make a good public presentation. This will obviously be helpful during the Research Evaluation, and during your job interviews.

GRADUATE RESOURCES

LIBRARIES

There are five main libraries at York: Scott Library, Steacie Science and Engineering Library, Peter F. Broffman Library, Leslie Frost Library and Osgoode Law Library. The **Steacie Science and Engineering Library** subscribes to all major chemical and biochemical journals and provides electronic access to most of these. Back issues are also available at the Library itself. Many resources are available online. For access to paid services and journal subscriptions, please make sure you install Junos Pulse, the preferred VPN (Virtual Private Network) client (<http://student.computing.yorku.ca/how-to-connect-securely/>), on your personal computer. This will allow access to these from anywhere, whether you are on campus or not. Information about library services and training is provided during the orientation session and can also be found online (<http://www.library.yorku.ca/web/steacie/>).

WRITING

The Centre for Academic Writing offers sessions and workshops in all aspects of writing. Sessions such as individual and drop-in tutoring, and group workshops are available to all students in the Faculty of Graduate Studies. The Centre is located in Ross South 329. See <http://www.yorku.ca/laps/writ/etutor/etutor.html> for details.

ESL CENTRE

The ESL Open Learning Centre (ESL-OLC), located in Ross South 327, is open to all York students and offers support to those for which English is not their first language. To register, go to <http://www.yorku.ca/eslolc/>.

GO SAFE

If you are working on Campus in the evening, you can take advantage of the complimentary Go Safe service that provides transportation around campus to parking lots, bus stops and residence. For information on route maps and schedules, visit <http://www.yorku.ca/gosafe/>

HOURS: 6:00 PM–2:00 AM (September to April)
8:00 PM–2:00 AM (May to August)

Contact info:

Phone: 416 736 5454 or EXT. 55454

By using any of the Blue Light Emergency phones

By payphone on campus (it's free)

By the goSAFE button on any campus Safety phone

INTERNATIONAL STUDENTS

York International is located in 200 York Lanes. The Office is a resource for incoming and continuing international students. They can address questions pertaining to health care plan, immigration status, study permits and all other related enquiries (<http://yorkinternational.yorku.ca/>).

FACULTY MEMBERS

Faculty Member	Office	Email	Research Interests
Gerald Audette <i>PhD</i> (<i>Saskatchewan</i>), <i>Associate Professor</i>	456 CB	audette@yorku.ca	Protein Crystallography, Bionanotechnology, Nanomedicine, Structural Biochemistry
Diethard Bohme <i>PhD</i> (<i>McGill</i>), <i>Distinguished Research Professor</i>	260 CB	dkbohme@yorku.ca	Biophysical and Bioanalytical Mass Spectrometry, Gas Phase Chemistry, Kinetics and Energetics of Reactions of Bare Metal
Jan Bottenheim <i>PhD</i> (<i>V.U. Amst.</i>), <i>Adjunct Professor</i>	006 SSEB	jan.bottenheim@ec.g c.ca	Atmospheric Photochemistry, Computer Modelling, Arctic Air Chemistry
Jennifer Chen <i>PhD</i> (<i>University of Toronto</i>), <i>Assistant Professor</i>	456 CB	jilchen@yorku.ca	Analytical, Inorganic, Materials and Physical Chemistry
Logan Donaldson <i>PhD</i> (<i>British Columbia</i>), <i>Professor; Home department: Biology</i>	49 FS	logand@yorku.ca	Structural Biology, NMR of Biological Molecules
René Fournier <i>PhD</i> (<i>Montreal</i>), <i>Professor</i>	303 PSE	renef@yorku.ca	Computational Chemistry
Dasantila Golemi- Kotra <i>PhD</i> (<i>Wayne State</i>), <i>Associate Professor; Home department: Biology</i>	452 CB	dgtkotra@yorku.ca	Biological Chemistry
Geoffrey Harris <i>PhD</i> (<i>Oxford</i>), <i>Professor</i>	338 PSE	gharris@yorku.ca	Atmospheric Chemistry
Donald Hastie <i>PhD</i> (<i>Canterbury</i>), <i>Professor and Chair of the Department</i>	305 PSE	hastie@yorku.ca	Atmospheric Chemistry
Alan Hopkinson <i>PhD</i> (<i>Sheffield</i>), <i>Professor Emeritus</i>	248 CB	ach@yorku.ca	Physical and Theoretical Organic Chemistry

Faculty Member	Office	Email	Research Interests
Demian Ifa <i>PhD (São Paulo), Assistant Professor</i>	252 CB	ifadr@yorku.ca	Mass Spectrometry Imaging, Clinical Mass Spectrometry, Ionization Techniques, Biological Chemistry
Philip Johnson <i>PhD (British Columbia), Associate Professor</i>	414 CB	pjohnson@yorku.ca	Biological Chemistry, Nucleic Acid Chemistry, Biophysical Chemistry, Biomolecular NMR
Sergey Krylov <i>PhD (Moscow State University), Professor, York Research Chair</i>	340 PSE	skrylov@yorku.ca	Bioanalytical Chemistry
Gino Lavoie <i>PhD (Massachusetts Institute of Technology), Associate Professor and Graduate Program Director</i>	145 PSE	glavoie@yorku.ca	Inorganic Chemistry, Polymers, Organometallics
Edward Lee-Ruff <i>PhD (McGill), Professor Emeritus</i>	420 CB	leeruff@yorku.ca	Organic Synthesis, Photochemistry
A. B. P. (Barry) Lever <i>PhD (London), Distinguished Research Professor Emeritus</i>	141 PSE	blever@yorku.ca	Bioinorganic Chemistry, Electrochemistry, Electronic and Vibrational Spectroscopy, Solar Energy Conversion
Clifford Leznoff <i>PhD (McGill), Distinguished Research Professor Emeritus</i>	448 CB	leznoff@yorku.ca	Organic Chemistry, Synthetic Organic Chemistry
Shao-Meng Li <i>PhD (Florida State), Adjunct Professor</i>	006 SSEB	lshao- meng.li@ec.gc.ca	Atmospheric Chemistry
Robert McLaren <i>PhD (Alberta), Associate Professor</i>	301 PSE	rmclaren@yorku.ca	Atmospheric Chemistry

Faculty Member	Office	Email	Research Interests
Sylvie Morin <i>PhD (Ottawa), Professor</i>	346 PSE	smorin@yorku.ca	Scanning Tunneling Microscopy, Electrochemistry, Metal Deposition, Nanostructures
Arturo Orellana <i>PhD (British Columbia), Associate Professor</i>	440 CB	aorellan@yorku.ca	Natural Products Synthesis, Synthetic Methods
Michael Organ <i>PhD (Guelph), Professor; Currently on leave at the University of Ottawa</i>	460 CB	organ@yorku.ca	Organic Chemistry, Combinatorial Chemistry
William Pietro <i>PhD (California), Professor</i>	138 PSE	pietro@yorku.ca	Inorganic Chemistry, Materials Chemistry
Pierre Potvin <i>PhD (McGill), Professor and Undergraduate Program Director</i>	406 CB	pgpotvin@yorku.ca	Ligand Synthesis, Coordination Chemistry, Electrocatalysts & Photocatalysts relevant to energy sources
Jochen Rudolph <i>PhD (Darmstadt), Professor</i>	006 SSEB	rudolphj@yorku.ca	Atmospheric Chemistry

Faculty Member	Office	Email	Research Interests
Valeria Tsoukanova <i>PhD (St. Petersburg State University), Associate Professor</i>	342 PSE	valeriat@yorku.ca	Physical Chemistry, Biophysical Chemistry, Biomaterials
Derek J. Wilson <i>PhD (Western Ontario), Associate Professor</i>	318 CB	dkwilson@yorku.ca	Protein Dynamics, Microfluidics, Time-resolved Mass Spectrometry, Biophysical NMR
Muhammad Yousaf <i>PhD (Chicago), Professor</i>	431C LSB	mnyousaf@yorku.ca	Surface Chemistry, Biomaterials Nanoscience, Biological Chemistry, Organic Synthesis

REGISTRATION PROCEDURES

All graduate students must maintain continuous registration in the Fall, Winter and Summer terms until graduation or withdrawal from the Program. The access period for Fall/Winter 2016-2017 terms begins June 7th, 2016. The registration website is found on www.registrar.yorku.ca (click on Web Registration and Enrolment and follow the prompts). An enrolment deposit is not required by the Faculty of Graduate Studies. You are registered as active when you accept your fees in the online Registration and Enrolment System.

REGISTRATION DEADLINES

August 16th, 2016 for the Fall term (FA16)

December 15th, 2016 for the Winter Term (W17)

Registration after these dates will result in a \$200.00 late fee. All students expecting to receive an assistantship, bursary or scholarship must register as "Full-Time" by the deadline. Students cannot get paid until registration has been completed.

Graduate students are required to register in each term until the completion of their degrees as either a full-time or part-time student. Please note that dropping from courses does not automatically indicate that a student has withdrawn from the program. In order to withdraw from the Faculty of Graduate Studies, students must submit the Withdrawal Form and a letter to their Graduate Program Office. The effective date of withdrawal is the date the letter is received.

Students should consult with their supervisor before selecting and enrolling in their courses. MSc part-time Coursework students can meet with the Graduate Program Director for advising if required.

Students may seek approval to take up to one full graduate course outside the Chemistry Program or outside York, as well as a Reading course. More information about these possibilities can be obtained from the Graduate Program Office (124 CB).

WHAT'S NEXT?

York Cards: Pictures for the YU Cards are taken in 200 William Small Centre. See www.yorku.ca/yucard for details.

Email Policy: To activate your York U email account, go to <http://computing.yorku.ca/students/email/>

FEES

The following fees reflect the 2016–2017 academic year and they are only intended as a guide. For more details and information about **supplementary and additional charges**, please visit <http://sfs.yorku.ca/>.

Tuition Fees (Canadian \$ amounts)

	Domestic Students	International Students
Full-time	\$1,848.85/term	MSC: \$6,528.84/term PHD: \$6,253.84./term
Part-time	\$924.41/term	MSC: \$3,264.40/term PHD: \$3,126.90/term

Fees are paid each term, **3 times a year**. Please refer to the Office of Student Financial Services website (<http://sfs.yorku.ca/fees/courses>) for methods of payment, late charges and your Student Account Statement.

Graduate fees are calculated according to a student's program and full-time or part-time enrolment status/activity level. **Fees are not calculated on a per course basis.**

FEES PAID BY AN EMPLOYER, GOVERNMENT OR AN EXTERNAL AGENCY (THIRD-PARTY BILLING)

If your tuition fees are being paid directly to the University by a third party (e.g., employer, Government, Embassy, etc.) you must submit your sponsorship letter to the Office of Student Financial Services immediately following registration.

Please note that you are still responsible for all charges on your student account, and late charges or other sanctions will apply if the account is not settled promptly. Your account will not be credited until payment has been received.

OUTSTANDING FEES

Graduate Students who have an outstanding financial debt to the University of \$1,000 or greater will be blocked from registering. If this is the case, students are strongly encouraged to pay down their debts or speak with someone in the Student Affairs Office of the Faculty of Graduate Studies (230 York Lanes) before the beginning of the term and NOT after the registration deadline.

Refund Tables

Students are responsible to pay tuition fees for all terms until completion of all requirements (including submission of the thesis/dissertation final copy to the Faculty of Graduate Studies) or withdrawal from the program.

Fall 2016 Refund Schedule

Percentage of Refund	Regular Refund
100 %	Up to and including Sept. 30 th
80 %	Oct. 1–15
40 %	Oct. 16–31
0 %	After Nov. 1 st

Winter 2017 Refund Schedule

Percentage of Refund	Regular Refund
100 %	Up to and including Jan. 31
80 %	Feb. 1–15
40 %	Feb. 16–28
0 %	After March 1

Reminder: Fees refunds/credit calculations are based on complete withdrawal from a term not withdrawal from individual courses. Please see page 11 for withdrawal procedures. Graduate fees are calculated according to a student's program and full-time or part-time enrolment status/activity level. Fees are not calculated on a per course basis.

BALANCE OF DEGREE FEES

Doctoral students must pay fees for a minimum of the equivalent of six terms of full-time registration (or 12 terms of part-time registration).

MSc students in Chemistry must pay fees for a minimum of the equivalent of 3 terms full-time and 6 terms part-time studies for MSc.

Students who complete their program in less time than the Program length will be responsible for payment of the “balance of degree fee” (<http://gradstudies.yorku.ca/current-students/student-finances/balance-degree-fees/>).

FINANCIAL SUPPORT (FULL-TIME STUDENTS)

Full-time Chemistry students who received funding letters usually receive funding packages consisting of a teaching assistantship and graduate assistantship.

Teaching Assistantships (Entailing approximately 270 hours of teaching-related duties) Students can elect to engage in assigned teaching-related work (laboratory demonstration, marking, invigilation) subject to availability and up to the above maximum. Teaching Assistants are represented by CUPE 3903. Please familiarize yourself with the Collective Agreement at: <http://3903.cupe.ca>. Please ensure that you know what your roles and responsibilities are as a TA (<http://teachingcommons.yorku.ca/resources-2/resources-for-tas-2/ta-roles-and-responsibilities/>).

Research Assistantships (minimum of \$8065 for MSc and minimum of \$8565 for PhD for the for 2016–2017 academic year). Full-time graduate students receive support from their supervisors' research grants, the amount of which is subject to individual discussion between students and supervisors; the student must be in a research group to receive this assistantship. Other than participation in research activities, there are no formal duties associated with this support.

SCHOLARSHIPS AND AWARDS

You will receive information about scholarship deadlines and application procedures via email by the Graduate Program and the Faculty of Graduate Studies. The Faculty of Graduate Studies also holds External Scholarship Information Sessions. We will inform you of the times and dates once they are available.

External Scholarships

When eligible, graduate students are encouraged to apply to external scholarships during their studies at York University. A list of scholarships includes: Vanier Canada Graduate Scholarship (\$50,000), NSERC CGS Doctoral (\$35,000), NSERC PGS Doctoral (\$21,000), NSERC CGS Master (\$17,500), NSERC PGS Master (\$17,300), Ontario Graduate Scholarship (\$15,000), The Queen Elizabeth II Graduate Scholarships in Science and Technology (\$15,000).

Internal Awards

York offers a range of awards to incoming and continuing graduate students. Some internal awards include: the Enbridge Graduate Student Award (\$12,500), the Dalton Pharma Services/Dr. Douglas Butler Award in Organic Chemistry (\$12,500), the Michael M. Pollard Bursary in Organic Chemistry (\$12,500) the Susan Mann Dissertation Scholarship (up to \$21,000) and the Provost Dissertation Scholarship (up to \$21,000).

Research/Fieldwork/Conference Support

Full-time students may apply to the following funds:

Fieldwork Cost Fund

The Fieldwork Cost Fund (FCF) defrays costs directly connected with research carried out “in the field” by full-time registered York graduate students. There is one competition per year held in the spring. Students are notified of the application deadline by the Graduate Program.

Eligible expenses may include:

- Travel and/or accommodation necessary for research;
- Incentive payments to research participants; and,
- Materials, supplies, photocopying and other services essential to the research.

Graduate Development Fund

The Graduate Development Fund (GDF) subsidizes students’ travel costs to events for presentation of their scholarly or creative work. There is one competition per year held in the spring.

Eligible expenses may include:

- Transportation costs necessary for York graduate students to present their scholarly or creative work at recognized events, such as conferences, colloquia, poster presentations and exhibitions;
- Transportation expenses incurred for travel to/from an event taking place within seven (7) months prior to the application deadline or six (6) months after the application deadline.

Research Cost Fund

The Research Cost Fund (RCF) defrays costs directly connected to research undertaken by full-time registered York graduate students who are or have been members of CUPE 3903 Unit 1. There are two competitions each year—one in the fall and one in the spring.

Eligible expenses may include:

- Travel and/or accommodation necessary for research;
- Incentive payments to research participants; and,
- Materials, supplies, photocopying and other services essential to the research.

Allocated funds are provided to successful applicants by reimbursement after eligible expenses are incurred and original, detailed receipts are provided (including incentives

payments). Reimbursement claims must match the budget line items approved by the Committee.

BURSARIES

York University provides a number of bursaries to assist Graduate Students in financial need, which the Office of the Dean, Graduate Studies administers in partnership with Student Financial Services. Students wishing to be considered for available bursaries at York University must complete a Student Financial Profile (<http://sfs.yorku.ca/aid/sfp/>). Some bursaries may require additional documentation. See <http://gradstudies.yorku.ca/current-students/student-finances/funding-awards/bursaries/> for details.

BENEFITS

Teaching Assistants (members of CUPE 3903 unit 1) and Graduate Assistants (members of CUPE 3903 unit 3) enjoy a number of extended health benefits (dental, prescription drug, and vision care).

York Benefits office expects all new TAs to enrol in the first month of their assignment. Otherwise, your benefits will not be active. The Benefit Enrolment Form is available at http://3903.cupe.ca/files/2014/04/cupe_3903_benefits_enrolment_change_form.pdf

MASTER OF SCIENCE PROGRAM

DEGREE REQUIREMENTS

There are two routes by which a student may achieve an MSc degree in chemistry, either by research thesis or by coursework.

MSc Degree by Research Thesis

All entering students plan a research program with their supervisor at the start of their degree studies. Progress in research is monitored by a Supervisory Committee through annual enrolment in the Research Evaluation Course (Chemistry 6020 3.0). This entails an annual progress report, consisting of a written paper, a public oral presentation, and an oral examination, usually in May. The student's progress will be documented on the "Research Evaluation Form" and signed by the Supervisory Committee and by the student. In cases where the annual progress report cannot be held at that time, approval for a delayed progress report must be requested from the Graduate Program Director. An "Overall Rating" of "Pass" on the Research Evaluation Form is needed to receive credit for Chemistry 6020 3.0, up to a maximum of 6 credits, and a statement of the student's progress in the student's record. In the event of failure to achieve satisfactory progress, the student is required to withdraw from the Program. Failure to enrol in the annual CHEM 6020 course and/or to submit the completed Research Evaluation Form within 30 days of the oral exam will result in receiving an "F" in the course, and withdrawal from the program.

In addition to the Research Evaluation course, each student must complete a minimum of one full course (6 credits) from those offered by the Graduate Program in Chemistry. These courses must be chosen in consultation with the student's supervisor.

Students may be required to take up to two full undergraduate courses if this is necessary to strengthen the student's background in relevant areas.

Candidates must conduct a research study and report the results in an appropriate thesis form. The research and thesis should demonstrate the candidate's independence, originality, and understanding of the area of investigation at an advanced level. After the submission of the thesis, which must be formally approved by the Supervisory Committee, an oral examination, centred on the thesis and matters related to it is held in front of an Examination Committee behind closed doors.

MSc Degree by Coursework

Candidates for the MSc degree by coursework must either:

- (a) Successfully complete three full courses (18 credits) chosen from those offered by the Graduate Program in Chemistry, and conduct a full-course literature survey (CHEM 6010 6.0) and write a review essay, which is submitted to an Examination Committee for approval; or
- (b) Successfully complete three full and one half courses (21 credits) chosen from those offered by the Graduate Program in Chemistry, and conduct a half-course literature survey (CHEM 6010 3.0) and write a review essay, which is submitted to an Examination Committee for approval; or
- (c) Successfully complete four full courses (24 credits), chosen from those offered by the Graduate Program in Chemistry.

Evening Courses

Some courses within the Graduate Program in Chemistry are offered on a once-per-week basis during weekday evenings. The options of an MSc degree by coursework, or by coursework and review essay are therefore particularly suited to part-time candidates. Because of the special nature of research work, the MSc degree option by research is generally only open to full-time candidates.

Time Limits

Candidates may take up to four years to complete the requirements for the MSc degree by coursework, or coursework and review essay on a part-time basis but a shorter period is desirable. Full-time candidates are normally expected to complete the requirements for the MSc degree in two years. All requirements for an MSc degree must be fulfilled within 12 terms of registration, with a maximum of 6 terms enrolled as full-time student.

DOCTOR OF PHILOSOPHY PROGRAM

ADMISSION REQUIREMENTS

Candidates with either an honours degree or a four-year undergraduate degree in chemistry or biochemistry (or its equivalent, with a minimum of 6 credits at the 4th year level), normally with at least B standing, may be admitted as candidates for the PhD degree. Normally, however, such candidates must first enrol in the MSc Program.

If their progress is satisfactory, they may be eligible for the PhD Program and advance in status to candidates (PhD I) for the PhD degree, generally after 24 months, and without necessarily completing the thesis requirements for the MSc degree. A graduate wishing to apply from the MSc Program for admission to the PhD Program must write a report of their research and submit this for approval to an Examination Committee.

DEGREE REQUIREMENTS

Candidates (PhD I & II) for the PhD degree must fulfil the following requirements:

1. Courses

All entering students plan a research program with their supervisor at the start of their degree studies. Progress in research is monitored by the Supervisory Committee through annual enrolment in the Research Evaluation courses (Chemistry 7020 3.0). This entails an annual progress report consisting of a written paper, a public oral presentation, and an oral examination, usually in May each year. The student's progress will be documented on the "Research Evaluation Form" and signed by the Supervisory Committee and by the student. In cases where the annual progress report cannot be held at that time, approval for a delayed progress report must be request from the Graduate Program Director. An "Overall Rating" of "Pass" on the Research Evaluation Form is needed to receive credit for Chemistry 7020 3.0 and a statement of the student's progress in the student's record. In the event of failure to achieve satisfactory progress, the student is required to withdraw from the Program. Failure to enrol in the annual CHEM 7020 course and/or to submit the completed Research Evaluation Form within 30 days of the oral exam will result in receiving an "F" in the course, and withdrawal from the program.

In addition to Research Evaluation courses, each student must take a minimum of two full courses (12 credits) from those offered by the Graduate Program in Chemistry. These must be chosen in consultation with the student's supervisor. The 12 credits need to be completed by the end of the first six terms in the Program. Permission of the Graduate Program Director is required for an extension to this time limit for course work completion. For students entering the PhD program with an MSc degree, a maximum of six credits may be allowed for courses taken at York University or at another recognized university.

2. Dissertation and Oral Examination

Candidates must conduct a research study and report the results in an appropriate dissertation form. The research and dissertation should demonstrate the candidate's independence, originality, and understanding of the area of investigation at an advanced level.

After the submission of the dissertation, which must be formally approved by the Supervisory Committee, an oral examination, normally centred on the dissertation and matters related to it, is held behind closed doors in front of an Examination Committee.

Time Limits

The PhD degree should be completed within four years. All requirements for a doctoral degree must be fulfilled within 18 terms of registration or 6 years as a full-time or part-time doctoral student.

RESEARCH PROPOSAL

All new graduate students must submit a thesis/dissertation proposal at the beginning of their second term of studies. Students converting to the PhD program after recommendation from the Supervisory Committee during the annual Research Evaluation must also submit an updated proposal.

Please use a template (see below) sent to students ahead of the submission deadline, without changing any of the formatting parameters (font, font size, margins, line spacing, etc.) All six parts must be filled out. The proposal must be at least 1.5 pages long but must not exceed 2 pages (not counting references in Section F).

A. Abstract/Executive Summary. In this part, you are asked to summarize what your proposal is all about at a level that can be understood by someone holding an undergraduate degree in chemistry, but not necessarily in your specialized area. This should be no more than 5 lines long.

B. Objectives of the Proposed Research. In this part, you are asked to describe what the long-term and short-term objectives are, realizing that those may very well change over time as you generate data from your research. "Long-term" refers to the targeted length of the program you are enrolled in (6 terms for MSc degrees and 12/15 terms for PhD degrees). In other words, your long-term objectives relate to the question(s)/issue(s) you will be addressing in your thesis/dissertation. Your short-term objectives refer to the milestones you are aiming for over the next year. These long-term and short-term objectives are possibly best described in a bullet point form, as shown below.

For example, the **long-term objective(s)** of my MSc/PhD research is/are to:

- ...
- ...

This will be achieved over the next year through a number of **short-term objectives**, which are to:

1. ...;
2. a) ...; and
b) however many sub-bullet points are necessary;
3. ...

C. Pertinent Literature. In this part, you are asked to describe literature pertinent to your research project that sets the foundation for your work. This will include, but will not be limited to, publications from your current research group. You must put your own research in perspective and describe how it fits in the current state-of-the-art.

D. Methods and Proposed Approach. Sections C and D are the bulk of your proposal. In Section D, you are asked to give details on how you will tackle the objectives described in Section B above. Figures illustrating synthetic schemes, instrument layouts, etc. can be incorporated in this section. This is the road map that you will refer to over the next several months to help you achieve your objectives and progress throughout your program.

E. Impact and Anticipated Significance of the Work. In this part, you are asked to briefly describe why your research is important and what impact it will have on the field, and hopefully on society too.

F. References. Make sure you cite literature appropriately. You are encouraged to adopt the ACS style. For more details, you can consult the ACS Style Guide, available online through York libraries.

RESEARCH EVALUATIONS

As noted above, the student's progress is documented on the "Research Evaluation Form" following the annual research evaluation held in April/May. The form is signed by the Supervisory Committee, the student and the Graduate Program Director. An "Overall Rating" of "Pass" on the Research Evaluation Form is needed to receive credit. In the event of failure to achieve satisfactory progress, the student is required to withdraw from the Program. Failure to enrol in the annual CHEM 6020 or 7020 course and/or to submit the completed Research Evaluation Form within 30 days of the oral exam will result in receiving an "F" in the course, and withdrawal from the Program.



GRADUATE PROGRAM IN CHEMISTRY RESEARCH EVALUATION FORM

- 1. Written Report.** The report must not exceed 20 pages of text (double space, 12-point Times New Roman) and must include (a) a brief introduction to the project, (b) a summary of the progress made during the year, and (c) an outline of plans for the following year. Experimental details (e.g., spectroscopic data) and other raw data should be included as an Appendix and do *not* count towards the page limit. An electronic copy of the report from the previous year as a PDF file must also be emailed to the Supervisory Committee. The written report must be distributed to the members of the Committee at least one week before the presentation.

Excellent Very Good Good Acceptable Unacceptable

- 2. Oral Presentation.** The oral presentation, opened to the Department, should be based on the material found in the written report. The presentation must be timed to 14 minutes with 4 minutes of questions from the audience. Evaluation will be on the quality of the presentation and the ability to answer questions.

Excellent Very Good Good Acceptable Unacceptable

- 3. Knowledge of the Research Topic.** The Committee ranks the student's knowledge of the research topic as conveyed in the written report, the oral presentation and the oral examination in front of the Committee.

Excellent Very Good Good Acceptable Unacceptable

- 4. Research Progress.** In addition to the above, the Committee assesses the research progress that the student has demonstrated in the past year.

Meets or exceeds expectations Unacceptable (Does NOT meet expectations)

5. Overall Rating. The Supervisory Committee *must* provide an "overall rating" of the student's performance. As guideline, students who have one or two "unacceptable" in any of the evaluation criteria above should be given an "incomplete" with the Supervisory Committee reconvening within three to six months. Students who have three or more "unacceptable" should be given a "fail" and as a result, be withdrawn from the Program.

Pass Fail Incomplete. Specify remedial actions in the Comments section below.

6. For MSc candidates ONLY: The Committee recommends conversion of the student to the PhD Program in... (check one box) *Completing all MSc degree requirements is highly recommended.* Regardless, candidates *must* have completed at least 6 credits of graduate courses before being recommended for conversion. An updated proposal from that originally submitted as an MSc candidate must also be submitted by the student.

F16 W17 Decision to be made sometime in the future Will not recommend

7. For both MSc and PhD candidates: Expected completion of all degree requirements in... (check one box)

S16 F16* W17* Later*

*A detailed plan with actionable items and deadlines must be included with this form for candidates who expect to graduate beyond targeted timelines: 6 terms for MSc candidates, 12 terms for direct-entry PhD candidates, and 15 terms for PhD candidates who converted from the MSc Program from the Department.

8. Comments. Comments and feedback are provided below to help the student progress through the Program in a timely fashion and/or to provide further details on the decision reached by the Supervisory Committee. The completed form, with signatures from the Committee and from the student, must be submitted to the Graduate Program Assistant within 2 weeks of the exam. The Graduate Program Director will then review and sign the form. Students will receive a copy upon request. This is an opportune time for students to discuss areas of concern with the Supervisor, the Supervisory Committee, the GPD and/or FGS.

Comments from the Committee (attach additional pages if needed):

Comments from the student (attach additional pages if needed):

GRADES

Grades will be awarded for every course in which a student is enrolled in accordance with the following system:

Grading System

A+	Exceptional	90–100%
A	Excellent	85–89%
A-	High	80–84%
B+	Highly Satisfactory	75–79%
B	Satisfactory	70–74%
C	Conditional	60–69%
F	Failure	0–59%
I	Incomplete	N/A

MINIMUM GRADES REQUIREMENT

Combinations of ‘C’ Grades that Require Withdrawal Unless Continued Registration is Recommended and Approved

A student who receives in total any of the following combinations of grades for graduate courses may not continue to be registered in the Faculty of Graduate Studies and in a Graduate Program unless continuous registration is recommended by the Graduate Program Director concerned and approved by the Dean:

- (a) Two C grades for full courses;
- (b) One C grade for a full course and one C grade for a half course;
- (c) A total of three C grades for half courses.

Combinations of ‘F’ and ‘C’ Grades that Require Withdrawal

A student will be required to withdraw from a Graduate Program and registration in the Faculty of Graduate Studies will be terminated if the student receives in total for graduate courses, any of the following combinations during enrolment at York University:

- (a) One F grade for a full course or two F grades for half courses; or
- (b) One F grade for a half course and one C grade for a full or half course.

In no case will grades ever be averaged.

PETITIONS

The regulations of the Faculty of Graduate Studies generally apply to all students registered in a Graduate Program at York University. However, it is also recognized that, as a result of exceptional or personal circumstances, one or more regulation may be waived through the petitions process. Petitions are made to the Dean of Graduate Studies, through the Director of the Graduate Program. The petitioner must state the regulation, the requirement that is subject of the petition and the grounds of the petition. See <http://gradstudies.yorku.ca/current-students/student-status/petition-submission-guidelines/> for details.

Common Petitions may include:

Advanced standing
Change of registration status
Extension of Program time limits
Leaves of absence
No course available petition
Reinstatement
Reinstatement to defend
Waive a program requirement

PETITION DEADLINES

Petitions should be submitted 4-6 weeks prior to the start of the term. The deadlines for the Summer, Fall and Winter terms are March 15th, July 15th and November 15th, respectively. Students who plan to submit a petition and/or change status should inquire with the Graduate Program Office for the exact deadline as those dates are subject to change.

PROCESS

1. Academic petitions in the Faculty of Graduate Studies are initiated by students by submitting a completed academic petition form (<http://gradstudies.yorku.ca/files/2014/06/academic-petition.pdf>). A completed academic petition form and any required or relevant supplemental documentation must be submitted to the Graduate Program Assistant in 124 CB. When preparing a petition, petitioners should seek the advice of the Graduate Program Director or the Graduate Program Assistant
2. Following submission of the completed petition to the Graduate Program Office, the Graduate Program Director reviews the petition and makes a positive or negative recommendation to the Faculty of Graduate Studies. This recommendation, including the completed petition form and any required or relevant supplemental documentation, is forwarded to the secretary of the Faculty of Graduate Studies Petitions Committee.
3. The Committee Secretary, or designate, may record on the petition form information pertaining to the petitioner's standing in the Faculty.

This information includes Leaves of Absence, the number of courses that are Incomplete, any other pertinent information (e.g., the number of C or F grades), and a statement of any fees owing. If a petitioner is not in good standing, the petitioner will be asked to address the issue that is placing them in poor standing. For example, if the petitioner holds a combination of grades requiring withdrawal from the Program, the petitioner must file a petition addressing how good academic standing will be achieved along with their original petition.

4. Petitions received in the Faculty of Graduate Studies are reviewed by an Administrative Officer who conducts an initial assessment of the petition.

5. Notification of decision. The Graduate Program Office notifies petitioners in writing of petitions decisions. Unless petitioners specify an alternate address, notice will be provided using the Graduate Program's internal notification system (e.g., office mail box). E-mail communication may contain only a statement of what was being petitioned and the decision (i.e., granted or denied). Commentary relating to decisions will be provided in hard copy only. Petitioners are responsible for notifying the Graduate Program Office of the means by which they can be reached throughout the petition process and must notify the Graduate Program of any change in the relevant contact information.

ACADEMIC HONESTY

Students in the Faculty of Graduate Studies are expected to adhere to the strict standards of academic honesty as specified in the Senate Policy on Academic Honesty (<http://www.yorku.ca/secretariat/policies/>).

The following information is available on the Faculty of Graduate Studies website (<http://gradstudies.yorku.ca/current-students/regulations/academic-honesty/>).

WHAT IS "ACADEMIC HONESTY" AND WHY IT IS IMPORTANT?

York University's Senate Policy on Academic Honesty (<http://www.yorku.ca/secretariat/policies/document.php?document=69>) is an expression of the academic conduct appropriate to and expected of students studying and researching in Academe. These expectations, particularly with respect to plagiarism, are grounded in a principle and practice that forms the basis of the academic enterprise—namely, that the work one submits for evaluation is the product of one's own original ideas, and that any material that belongs to someone else, because he or she first produced and/or presented it, must be properly **referenced and cited**. If there is no way for a reader to tell which words and ideas are those of the author and which are those of others, then the work demonstrates plagiarism. It loses its integrity as a document of original scholarship and is academically dishonest.

HOW TO AVOID ACADEMIC DISHONESTY

York's Academic Integrity Tutorial (http://www.yorku.ca/tutorial/academic_integrity/) is designed to test and inform students about academic integrity expectations and what to keep in mind in order to avoid academic dishonesty. At York University, a foundational expectation is that students are aware of and respect the principle of proper representation in one's work, including how to avoid plagiarizing the work of others. Relative to the existence of misrepresentation in work that has been submitted for evaluation (which includes drafts) as one's own, intention does not matter. Simply put:

- *If work containing misrepresentation is submitted for evaluation, then one is responsible for the misrepresentation, regardless of intent.*

There are a number of citation styles that describe in detail how to reference and cite the work of others properly in one's own work. Graduate students are responsible to ensure that they are aware of and properly follow an appropriate citation style. Uncertainty about which citation style should be followed can be cleared up by consulting with one's course director or Program Director.

The York University Libraries Graduate Student Library Guide (<http://www.library.yorku.ca/cms/graduate/>) provides a number of useful resources, including links to the guides for the most popularly used citation styles, access to RefWorks (which is a web-based bibliographic management/citation manager tool), and links to research and writing guides. The York University Libraries also offers a Guide for International Students

(<http://researchguides.library.yorku.ca/international>) that is intended to help international and exchange students find information about resources and services available at the Libraries.

WHOM TO TALK TO ABOUT OPTIONS AND SUPPORT

Graduate students are often faced with pressures—from competing timelines to personal issues to feeling or being unprepared to perform at the expected level—that may lead one to choose to act in a way that is academically dishonest. It is important to know that there are a number of choices one can make rather than a dishonest one, and that there are people who you can speak with about making these choices.

- The Graduate Students' Association (325 Student Centre, 416-736-5865, info@yugsa.ca) can provide support, including information and confidential advice about coursework extension and leave options available to graduate students.
- Even if the deadline for submission of an assignment or piece of work is at hand, talk to the professor about an extension. Explain your situation honestly and fully. There is no shame in asking for assistance.
- The Graduate Program Director is available to provide students with advice, guidance and support, and can be of particular assistance if conversations with individual course directors or supervisors have not been fruitful. If an extension of an assignment or piece of work will not provide the necessary relief, one option is to speak with the Program Director about a leave of absence.
- Counselling & Disability Services (<http://www.yorku.ca/cds/index.html>) provides a range of services, from personal counseling to support (including requests for academic accommodation) for students with disabilities.
- Attending university and coping with all the expectations, over and above other responsibilities you may have outside school, can be very challenging. A number of options are available to you, on and off campus, to help you deal and cope with difficult situations. For example, York University offers **personal counselling services** (www.yorku.ca/cds/pes). They are located in Room N110 of the Bennett Centre for Student Services and can be reached at ext. 55297. Alternatively, postsecondary students in Ontario can call 1-866-925-5454 to reach the **Good2Talk helpline** (www.good2talk.ca). Other noteworthy services include the Community Crisis Response Program (416-498-0043), the Mood Disorders of Ontario (mooddisorders.ca) and the Mental Health Helpline (mentalhealthhelpline.ca; 1-866-531-2600)
- The Writing Department offers group workshops that focus on major elements of effective academic writing.

WHAT IS THE PROCESS IF THERE IS A SUSPECTED BREACH OF ACADEMIC HONESTY?

The Faculty of Graduate Studies Procedural Guidelines (<http://gradstudies.yorku.ca/files/2014/06/academic-honesty-guidelines.pdf>) provides a detailed description of the investigation and hearing process. The FGS Procedural Guidelines are consistent with those specified in the Senate Policy on Academic Honesty. For ease of

reference, the numbering used in the Procedural Guidelines is consistent with the numbering used in the Senate Policy.

Students suspected of a breach of academic honesty will be invited to attend an exploratory meeting, which is normally chaired by the Graduate Program Director. The exploratory meeting is intended "[...] to determine whether or not there are reasonable and probable grounds to proceed with a charge of breach of academic honesty" ("Senate Policy on Academic Honesty." York University Secretariat. York University, n.d. Web. 9 Apr, 2012.). Although the meeting is intended to be exploratory in nature, it is a formal stage in the investigation/hearing process and should be treated seriously. At the exploratory meeting, students will be presented with the evidence that led to the complaint and will be expected to respond to the suspected breach of academic honesty. Given the significance of the exploratory meeting in the investigation/hearing process, students may be accompanied by someone who can offer support and comfort, as well as act as a witness to the meeting.

As it is a formal stage of the investigation/hearing process, the expectation is that the exploratory meeting will result in one of the following four outcomes, which will be reported by the Chair of the exploratory meeting (normally the Graduate Program Director) to the Faculty of Graduate Studies Appeals & Academic Honesty Committee. Except in cases where the student and Program reach agreement that no breach of academic honesty occurred, a confidential record of the investigation/hearing will be kept in the Office of the Dean, Graduate Studies. The Graduate Students' Association (325 Student Centre, 416-736-5865, info@yugsa.ca) can provide confidential advice and support to students who would like to speak to a third party prior to the exploratory meeting.

The four possible exploratory meeting outcomes are:

- A student admits to a breach of academic honesty and reaches agreement with the program with respect to recommended penalty. The Faculty of Graduate Studies Appeals & Academic Honesty Committee will either accept the recommended penalty, or arrange for a formal hearing in cases where they are not convinced that the agreed-to penalty is appropriate or the breach is not the first incident of breach of academic honesty by the student.
- A student admits to a breach of academic honesty but does not reach agreement with the Program with respect to recommended penalty. The Faculty of Graduate Studies Appeals & Academic Honesty Committee will arrange for a formal hearing.
- A student does not admit to a breach of academic honesty but the Program concludes that sufficient grounds exist to proceed with a formal charge. The Faculty of Graduate Studies Appeals & Academic Honesty Committee will arrange for a formal hearing.
- A student and Program reach agreement that no breach of academic honesty occurred.

Although the expectation is that the exploratory meeting will result in one of four outcomes described above, students should not feel coerced to agree to something which they do not believe. At the same time, however, it is important to keep in mind that a breach of academic honesty, particularly plagiarism, concerns the existence of misrepresentation in work submitted as one's own and does not address intention or cause.

In cases where a formal hearing is the outcome of the exploratory meeting, the evidence provided to the Faculty of Graduate Studies Appeals & Academic Honesty Committee will include the exploratory meeting report submitted by the meeting Chair. If a student has not accepted responsibility and admitted to the breach of academic honesty, the role of the committee first will be to determine whether or not there was a breach of academic honesty. If a student has accepted responsibility and admitted to the breach of academic honesty, the role of the committee will be to determine the appropriate penalty.

Students will be invited to attend the formal hearing, and may be accompanied by someone who can offer support and comfort. The Graduate Students' Association (325 Student Centre, 416-736-5865, info@yugsa.ca) can provide confidential advice and support to students who would like to speak to a third party prior to the formal hearing.

Any penalty recommended at or agreed to at the exploratory meeting is subject to review and approval by the Faculty of Graduate Studies Appeals & Academic Honesty Committee. In its review of jointly recommended penalties, as well as consideration of penalties following a finding of academic misconduct at a formal hearing, the Senate Policy directs the committee to consider a number of factors, including the extent of the violation, the student's academic background, and any extenuating circumstances that may help explain the breach including the extent to which these circumstances should inform the penalty. Determination by the committee of the "appropriateness" of penalty will include consideration of both the unique circumstances of each case and consistency with respect to the range of penalties given for similar types of breaches.

For further information about the investigation/hearing process, please contact:

Sarah Whitaker

Academic Affairs Officer

Office of the Dean

Faculty of Graduate Studies

sarahw@yorku.ca

416-736-2100 ext. 66958

GUIDELINES FOR THE PREPARATION AND SUPERVISION OF THESES AND DISSERTATIONS

Detailed information about the preparation of theses and dissertations is available at <http://gradstudies.yorku.ca/current-students/thesis-dissertation/>

Below are general requirements and important points to be considered when setting up your Supervisory Committee. The Graduate Program Assistant will contact students when it is time to set their Supervisory Committee and submit their proposals to the Graduate Program Director and the Faculty of Graduate Studies (2nd term of studies). However, it is the students' responsibility to follow deadlines and submit all paperwork within the established deadlines.

THESIS SUPERVISORY COMMITTEES

A thesis Supervisory Committees will normally consist of a minimum of two faculty members appointed to the Faculty of Graduate Studies, at least one of whom must be from the Program in which the student is enrolled, and who serves as the principal supervisor. In exceptional circumstances, and with the prior approval of the Dean, one additional member may be appointed who is not a member of the Faculty of Graduate Studies.

DISSERTATION SUPERVISORY COMMITTEE

A Dissertation Supervisory Committee will consist of a minimum of three members from the Faculty of Graduate Studies, at least two of whom must be members of the Graduate Program in which the candidate is enrolled. The principal supervisor must be a member of the Graduate Program in which the candidate is enrolled. In exceptional circumstances and with prior approval of the Dean, the third, or an additional member, may be appointed who is not a member of the Faculty of Graduate Studies.

Please ensure that the Graduate Program Assistant has accurate information about the names of your Committee members. If you wish to change the membership of your Supervisory Committee, it is your responsibility to discuss with your supervisor, find a replacement and notify that person and the Graduate Program Assistant. The change must be submitted in writing and signed by the student, the supervisor and the Graduate Program Director.

Supervisor's Roles and Responsibilities

A thesis/dissertation research supervisor shall:

- be reasonably accessible to the student, normally meeting at least once a month and never less than once each term.

- ensure that a copy of the student's thesis/dissertation is sent to each member of the student's thesis/dissertation Examination Committee as far as possible in advance of the date of the student's oral examination, but no later than four weeks prior to the date set.

Supervisory Committee Roles and Responsibilities

A thesis/dissertation Supervisory Committee shall:

- review the student's research proposal and recommend its approval to the Graduate Program Director and the Dean not less than six months prior to the date set for the oral examination;
- if deemed appropriate, review the student's progress normally each month and never less than once each term. (Reports to the Graduate Program Director of unsatisfactory progress may require a student to withdraw from a program of studies or withdraw from the Graduate Program in which the student is enrolled);
- meet annually with the student, normally in the spring, to evaluate the Progress Report submitted by the student and submit a completed and signed copy of the Report to the Graduate Program Director after the meeting; and,
- read the thesis/dissertation and make a formal recommendation to the Graduate Program Director regarding the oral defense.

EXAMINATION COMMITTEES

Once the Supervisory Committee has agreed to the thesis/dissertation being examinable, an Examination Committee will then be formed with consultation with the student's supervisor. The make-up of the Examination Committee is dependent on whether a thesis (MSc Program) or a dissertation (PhD Program) is considered.

Detailed information about oral exams and Examination Committees is available online (<http://gradstudies.yorku.ca/current-students/thesis-dissertation/oral-examination/>).

MSc THESIS EXAMINATION COMMITTEE

Composition of Committee

A thesis Examination Committee shall consist of at least three voting members, including the Chair, as follows:

- a. two FGS faculty members chosen from the Program and/or Supervisory Committee, at least one of whom must be from the Supervisory Committee;
- b. one FGS faculty member at arm's length from the thesis from outside the Program.

The Chair of the Examination Committee shall be chosen from among the voting members. Members of the student's thesis Supervisory Committee may be members of the Examination Committee, but the principal supervisor may not serve as the Chair of the Examination Committee.

Approval Timelines

The membership of the thesis Examination Committee, including designation of the Chair must be submitted to the Graduate Program for the Graduate Program Director's recommendation no later than **four weeks** before the date set for the oral examination.

Copies of the MSc thesis approved by the Supervisory Committee must be provided to the members of the Examination Committee no less than **three weeks** before the date of the oral examination.

Approval Process

Prior to the establishment of a MSc thesis Examination Committee, the student's Supervisory Committee must read the thesis and agree that the version read is ready to proceed to oral examination.

Following agreement by the Supervisory Committee that the thesis is ready to proceed to oral examination, recommendation for membership of a MSc thesis Examination Committee (as well as the date and location of the oral exam) is formally initiated by the Graduate Program

Director via submission of a Recommendation for Oral Examination Form to the thesis coordinator in the Office of the Dean, Graduate Studies.

Final approval of master's thesis Exam Committee membership recommendation rests with the Dean of the Faculty of Graduate Studies.

Reporting of Results

The Examination Committee must reach one of the following four decisions:

1. Accepted with No Revision
2. Accepted Pending Specified Revisions
The nature of the revisions should be agreed to by the Exam Committee and reported in detail on the Oral Examination Report Form under "comments". Specified revisions must be completed within six months of the date of the oral exam. Specified revisions must be completed within six months of the date of the oral exam. It is the responsibility of the supervisor to ensure that all of the specified revisions are made and the Chair will confirm that this is the case. Approval of specified revisions should be reported to the Office of the Dean, Graduate Studies.
3. In cases involving a referred pending major revisions decisions, one of the following procedures must be used to finalize the oral results: a) the committee will reconvene within twelve months to continue the oral examination, or b) the revised thesis will be circulated within twelve months to all members, who will inform the Chair whether they feel the stipulated requirements have been met. Please note that a clear consensus must be reached by the Exam Committee as to the extent and nature of the revisions required. Detailed reasons for referring pending major revision must be supplied in writing by the Chair of the Exam Committee to the Dean, the Program Director and the candidate concerned within two weeks.
4. Failed
In the event of failure, detailed reasons must be supplied in writing by the Chair of the Exam Committee to the Dean, Program Director and candidate within two weeks.

PHD DISSERTATION EXAMINATION COMMITTEE

Composition of Committee

A dissertation Examination Committee shall consist of at least five voting members, including the Chair, as follows:

- a. One external examiner, from outside York University, at arm's length from the dissertation, recommended by the Program Director;
- b. one FGS faculty member at arm's length from the dissertation, and normally from outside the Program, recommended by the Program Director
- c. two FGS faculty members from the Supervisory Committee, or one member from the Supervisory Committee and one FGS faculty member from the Program;

- d. one FGS faculty member will serve as Dean's Rep/Chair of the Examination Committee. The Chair may be a member of the student's Supervisory Committee but the principal supervisor may not serve as the chair of the Examining Committee.

Approval Timelines

The membership of the dissertation exam committee, including designation of the Chair must be submitted to the Graduate Program for the Graduate Program Director's recommendation no later than **five** weeks before the date set for the oral examination.

Copies of the doctoral dissertation approved by the Supervisory Committee must be provided to the members of the Examination Committee no less than **four** weeks before the date of the oral examination. (The oral exam may be held less than four weeks from the time copies are sent to the Examination Committee provided all parties agree.)

Approval Process

Prior to the establishment of a dissertation Exam Committee, the student's Supervisory Committee must read the dissertation and agree that the version read is ready to proceed to oral examination.

Following agreement by the Supervisory Committee that the dissertation is ready to proceed to oral examination, recommendation for membership of a dissertation Exam Committee (as well as the date and location of the oral exam) is formally initiated by the Graduate Program Director via submission of a Recommendation for Oral Examination Form (<http://gradstudies.yorku.ca/files/2014/07/oral-exam-doctoral.pdf>)

Final approval of the dissertation Exam Committee rests with the Dean of the Faculty of Graduate Studies.

Selection of External Examiner

External Examiners are expected to be established academics, normally members of a graduate faculty at another university. Students may not initiate the invitation to External Examiners. This is the responsibility of the Program Director and/or the Supervisor.

Following approval by the Dean of the Program's External Examiner recommendation, a formal letter of invitation will be written by the Dean to the External Examiner, offering the Examiner an honorarium and indicating how to claim expenses. Program directors must obtain prior approval from the Office of the Dean, Graduate Studies of external examiners' expenses above \$350. Therefore, External Examiners should not be invited unless approval has been obtained.

The Program Assistant or the Supervisor (not the student), should send the External Examiner's copy of the dissertation. The copy must be received by the External Examiner at least 4 weeks prior to the exam.

The External Examiner will be asked to submit written comments one week in advance of the oral examination. These comments may be made available to the candidate after the oral, but not before, with the External Examiner's permission.

Reporting of Results

The Oral Examination Report Form requires that the committee reach one of the following four decisions:

1. Accepted with No Revision

2. Accepted Pending Specified Revisions

The nature of the revisions should be agreed to by the Exam Committee and reported in detail on the Oral Examination Report Form under "comments". Specified revisions must be completed within six months of the date of the oral exam. Specified revisions must be completed within six months of the date of the oral exam. It is the responsibility of the supervisor to ensure that all of the specified revisions are made and the Chair will confirm that this is the case.

3. Referred Pending Major Revisions

In cases involving a referred pending major revisions decisions, one of the following procedures, agreed upon by the committee before the examination is adjourned, must be used to finalize the oral results: a) the committee will reconvene within twelve months to continue the oral examination, or b) the revised dissertation will be circulated within twelve months to all members, who will inform the Chair whether they feel the stipulated requirements have been met.

Please note that a clear consensus must be reached by the committee as to the extent and nature of the revisions required. Detailed reasons for referring pending major revision must be supplied in writing by the Chair of the Exam Committee to the Dean, the Program Director and the candidate concerned within two weeks.

4. Failed

In the event of failure, detailed reasons must be supplied in writing by the Chair of the Exam Committee to the Dean, Program Director and candidate within two weeks.

SAFETY TRAINING

REQUIREMENTS

The Faculty of Science and the Department of Chemistry have established a training outline for TAs that is compliant with the Occupational Health & Safety Act. In keeping with York's obligation to provide proper instruction and training, all required courses should be completed before the commencement of duties. Graduate students will **not** be able to commence their teaching assignment and research until they complete the mandatory training requirements.

For new graduate students and new TAs in the Department of Chemistry, the following sessions are **mandatory**:

- *Health & Safety Orientation*: available online at <https://moodle.yorku.ca/moodle/course/view.php?id=36422> (you only need to complete the first module *Health & Safety Orientation for Faculty and Staff*)
- *WHMIS II* (in class)
- *Chemical Handling & Volatile Rooms* (in class)
- *Laboratory Fire Safety* (in class)
- *Compressed Gas Cylinder Safety* (in class)

Depending on the type of research involved in, graduate students **may** also need to complete:

- *Biosafety* (in class)
- *Laser Safety* (in class)

Online Training Session

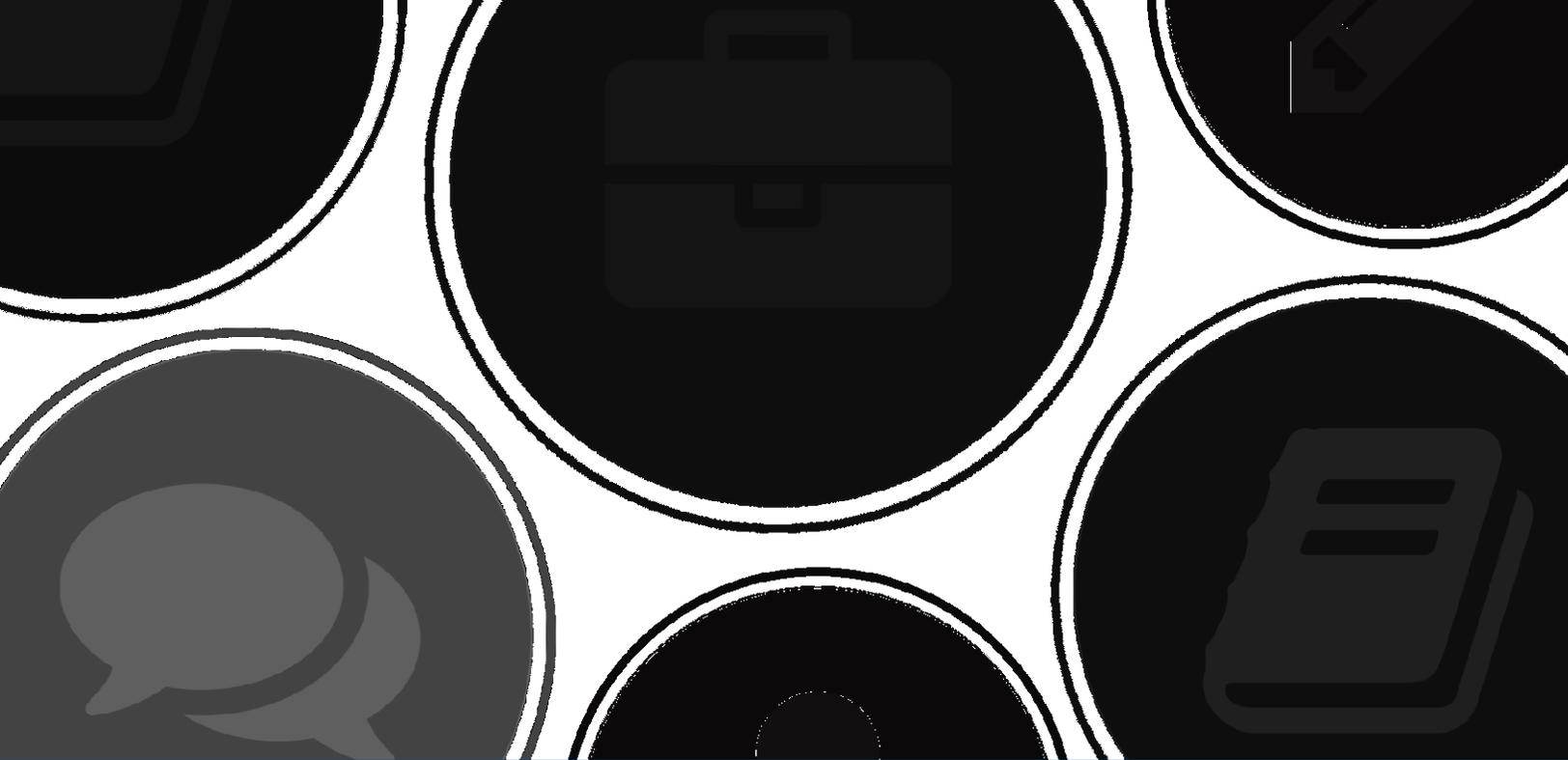
If prompted for a key to enter the course, please enter: **learning** (case sensitive). For better tracking of your training record, you should use an Employee ID based Passport York account (different from a Student ID based Passport York account). If you do not have an Employee based Passport York account, go to: <http://staff.computing.yorku.ca/faculty-staff/passwords-passport-york-access/>.

In-Class Training Session

To assist with completion of mandatory training, the in-class sessions listed above are offered the week of September 6th-9th, as shown in the timetable on the next page.

To register for in-class sessions, go to:

<https://dohs.apps01.yorku.ca/machform/view.php?id=48801>



Graduate & Postdoctoral Professional Skills

The Graduate & Postdoctoral Professional Skills (GPPS) Program offers 12 workshops designed to provide specialized professional development opportunities to York's grad students and postdocs.

- **Explore** career paths by meeting mentors in a range of fields, both non-academic and academic
- **Build** non-academic and academic job search skills through career conversations sessions and job search workshops
- **Gain** key professional development and resume-building opportunities in areas such as editing, project management, communicating assertively, and proposal writing

GPPS workshops are offered in these core areas:

- Career Pathways & Options
- Knowledge Transfer Strategies
- Transferable Professional Skills
- Writing Success

Check out the full list of GPPS workshops at:

gradstudies.yorku.ca/gpps

