
Department of Chemical and Materials Engineering

This document is available in here:

Information for Graduate Students

Chemical and Materials Engineering

2021-2022

Disclaimer: All the information in this booklet is compiled on a best efforts basis and is believed to be correct at the time of publishing. In the event of a conflict between these rules and those stated in the calendar, the rules in the calendar shall have precedence.

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1. Welcome

Welcome to the Department of Chemical and Materials Engineering at the University of Alberta. On behalf of the entire academic staff, we hope that your studies will be rewarding.

Most new graduate students find that the first several weeks are demanding. **If you experience any problems, you should consult with one of the graduate advisors shown in the list below, as they are here to assist you.**

The graduate program assistants are also a valuable source of information and will assist you throughout your studies. The academic staff members are genuinely interested in meeting new graduate students - you are encouraged to introduce yourself to the academic staff.

The first part of this booklet gives general information, and the second part gives information about the various graduate programs and student responsibilities. **Every student should read this booklet in its entirety. Ignorance of rules and regulations is no excuse. In particular, pay special attention to your program requirements, since you will not be able to graduate if you have not met each of those requirements.**

1.2 Key Department Contacts

A listing of department staff with contact information can be found on the department website: [HERE](#).

Associate Chair of Graduate Studies	Dr. Hao Zhang
Graduate Program Assistants	Mia Law, Harper Paranich
Graduate Advisor for Chemical Engineering	Dr. Natalia Semagina
Graduate Advisor for Materials Engineering	Dr. Hyo-Jick Choi
Department Chair	Dr. Vinay Prasad
Assistant Chair	Aneta Thompson
Office Space Assignment	CME Reception

2. Administration Procedures

2.1 Student ID Card — ONEcard

You can get your student ID card (ONE card), from the **ONE card office** located in **9104 HUB Mall**.

The ONE card contains your student number, picture and etai

TD1 and TD1AB forms (these forms are **optional**) are available at the links below:

[TD1 form](#)

[TD1AB form](#)

You may complete these forms (**optional**) and forward them to a Graduate Assistant.

A chequing account with a Canadian bank must be opened before you will receive payment from our department.

Further banking information can be found in **section 6.3 of this document**.

Your pay information can be viewed using [BearTracks](#).

Graduate Student Assistantship Information

Graduate students will be paid twice a month.

All payments are made by direct deposit to the student's personal bank account. Students must set up direct deposit in [BearTracks](#).

For **instructions** on how to set up direct deposit, [CLICK HERE](#).

Automatic Deductions of Outstanding Fees and Tuition

The University's payroll system automatically deducts outstanding tuition and fees from the paychecks of graduate teaching and research assistants one month after the start of Fall, Winter, Spring and Summer terms.

That is, **any Fall tuition owing as of October 1 will be deducted from the student's October, November and December paychecks** in six semi-monthly installments to a maximum of 80% of your salary.

If there is tuition left owing at the end of the term, Financial Services will issue a statement letting you know the amount that is due in their office by a certain date.

Similarly, **any Winter tuition owing as of February 1 will be automatically deducted from the student's February, March, and April paychecks** in six semi-monthly installments.

Also, students will have automatic deductions from their paychecks in June, July and August. Deductions will occur twice a month, on each paycheck.

Students cannot exempt themselves from this payroll deduction.

Full tuition for the Fall, Winter, Spring and Summer terms must be paid by the respective deadlines in order to have no fees deducted from your paycheck.

Note: The automatic payroll deduction is **only taken from assistantship funding**. Installments are not withdrawn from any scholarship funding students may be receiving.

Students must report all scholarships received to a Graduate Assistant.

2.3 Office Assignments

The Department will assign a desk for each student during the first semester.

Office assignments are done by CME Reception.

2.5 Personal Information

It is the student's responsibility to ensure that their personal contact information is updated with the University at all times.

Students can change their contact information by accessing [BearTracks](#).

It is also the responsibility of the student to **inform the Dade**

On occasion, the department has experienced laboratory burglary. **Please ensure that your laboratory is locked when unattended, and all your personal belongings are locked up in a secure place at all times to prevent theft.**

2.9 Computer and Network Access

After you have finished your registration, it is necessary for you to **complete an [on-line form](#)** to ensure that you will be added to the **department e-mailing lists** and that you will have access to **department computing resources**.

2.10 Medical and Dental Insurance

You will need to **apply for Alberta Health Care Insurance**. Locations are listed [in this link](#).

The **Graduate Student Association (GSA)** has a **dental/health plan** to help with medical fees that are not covered by Alberta Health Care. The cost for this plan is included in your University fees. If you are covered by a comparable health or dental plan, you can opt out of the GSA plan by submitting proof of your equivalent coverage to the GSA at Triffo Hall. **Full-time students are automatically re-enrolled into the dental/health plan each year.** For more information, visit [the GSA website](#).

3. University and Department Services

3.1 Mail Service and Mailboxes

Department mail for students is placed **in a filing cabinet in the room next to reception on the 12th floor of the ICE building**. There are 26 files, one for each letter of the alphabet. The letter corresponds to the first letter of your last name (e.g., all mail for Bill Jones would be placed in file J.)

Mail that does not have a proper mailing address will be placed inside a box (outlined in red) and this mail **will be sent back if unclaimed after one month**.

All mail will be inserted into the appropriate file, except for large items, in which case an email will be sent indicating where it may be claimed. **All personal mail must be sent to a home address or post office box.**

3.2 Telephone

Public call boxes are located in various places. Supervisors may also provide a telephone handset in the lab space for students and research staff members to use. The prime purpose of these handsets is to allow convenient contact with local equipment and material suppliers; consequently, personal calls should be kept to a minimum during business / office hours.

3.3 Photocopiers and Fax Machine

The use of the photocopier and fax machine is restricted to office hours and care should be taken to use the equipment. You will need a PIN to access the photocopier. To obtain a PIN, you must have the permission of your supervisor.

***The photocopiers / fax machine are to be used for university-related business only.**

Theses are not to be photocopied on department photocopiers.

Also be aware that the University of Alberta has contractual agreements regarding copyright infringement. You should not photocopy large portions of books, because this can constitute copyright infringement.

3.4 Department Forms

Many of the forms that you will need are available on our website [here](#).

3.5 Office Supplies

The department does **not** provide office supplies. They are your or your supervisor's responsibility.

3.6 Conference Rooms and Projectors

The department conference rooms and the department computer and projector can be **booked** for research meetings and seminars **through your google calendar**.

3.7 Ordering and Shipping Supplies

Ensure that **your name** is included on the address label when ordering supplies.

When a package is received in the department, an email will be sent to you to notify you of its arrival. **The Department assumes no responsibility for the ordering or delivery of any supplies.**

For any problems with delivery of packages, contact Supply Management Services. When having items shipped to the department, please add at least one full day to your estimated time of arrival for distribution from Supply Management Services.

All forms (i.e.: invoices, indent copies, purchase order copies, shipping forms, etc.) must be given to the department bookkeeper.

Shipping of dangerous goods **must** be done with the supervision of the Department's safety officer.

3.8 Machine and Instrument Shops

The department has well equipped and staffed machine and instrument shops. Consult your supervisor about access to these facilities.

3.9 Purchasing

Equipment and supplies for teaching or research needs must be requisitioned on either indent forms (for internal university suppliers) or purchase requisition forms (external suppliers). The forms must be approved or signed by staff members with the appropriate signing authority. In all cases, **all financial paperwork must be given to**

3.

4. Services for International Students

4.1 University of Alberta International Centre

The University of Alberta International Centre provides excellent services and programs to both Canadian and foreign students, such as orientation programs and information on study abroad opportunities.

Find their website [here](#).

4.2 International Student Orientation

International students are encouraged to participate in the international orientation seminar held at the International Centre. Please see the website link above for more information.

4.3 English Language Training

Students whose speaking and/or writing skills need improvement are encouraged to acquire basic skills through formal courses. **The International Centre** has information on language schools and individual tutors. English language training courses are also offered by:

[Faculty of Extension](#)

[Academic Success Centre](#)

[Continuing Education through Metro Community College](#)

[MacEwan University](#)

[Norquest College](#)

4.4 Renewing Your Study Permit

If you want to extend your stay in Canada as a student, please visit these two websites:

[UAlberta Study Permit Extension](#)

[Canadian Study Permit Extension](#)

Check the expiry date on your study permit and make sure you apply well before that date.

If you apply for renewal of your study permit, and the permit expires before you receive an answer, you can continue to study in Canada under the same conditions until you receive a decision.

Please bring a copy of your payment receipt as well as the Canada Post receipt to a Graduate Assistant. The receipts should list the date of the application as well as your full legal name.

You should apply to renew your study permit if you intend to travel outside Canada and your permit will expire while you are travelling. You cannot extend your study permit beyond the expiry date on your passport. **If your study permit has expired and you have not applied for an extension, you must leave Canada.**

5. General Information

5.1 Transportation

The City of Edmonton has a public transportation system

5.3 B

It is your responsibility to **be aware** of all deadlines in the University of Alberta Calendar pertaining to registration, **especially the add/drop deadlines**. Registration can be completed through the [BearTracks web-based system](#).

Please see section 13 of this handbook for further registration information.

If you have any difficulties registering, please see a Graduate Assistant for assistance. **EMAIL FIRST** to book a time or ask a question.

6.4 Seminars

The Department offers a distinguished seminar series, called the **D.B. Robinson Distinguished Seminar Series**, of which the premier event is the ICI lectures. Other seminars may be offered from time to time.

Attendance at a minimum of 75% of these seminars per academic year is **required by all MSc and PhD students** throughout the duration of their program. Students starting their program in January must attend at least three of these seminars in their first term. Attending these seminars is **optional but recommended for MEng students**. Students who miss the attendance requirement for the D.B. Robinson series will be assigned additional work.

Seminar notices will be e-mailed to the department and posted on the departmental website. Notices of interest to graduate students and official notices are posted on the bulletin board at several locations in the department.

6.5 Presentation Requirement

All MSc and PhD students are required to deliver **one public presentation on their research**. The approval of an external conference presentation to satisfy the seminar requirement is at the discretion of the Associate Chair (Graduate). A presentation made at the Faculty of Engineering Graduate Research Symposium (FEGRS) qualifies towards the presentation requirement.

MSc students can request permission for presentations that were made at venues other than conferences and FEGRS to be considered for meeting the presentation requirement, but approval of those requests is at the discretion of the Associate Chair for Graduate Studies. The form for requesting permission is available in the forms cabinet on the CME department's website [here](#).

6.6 Professional Development Requirement

Engineering graduate students must undertake a **minimum 12 hours** professional development over the course of their degree. As of Fall 2017, the Faculty of Engineering requires training in preparation of a student's Individual Development Plan (IDP) and 4 hours of career development workshops provided by the Faculty of Engineering. In addition, 8 hours are required by the Faculty of Graduate Studies and Research (FGSR).

As of Fall 2017, Engineering Graduate students must meet their Professional Development through the completion of two virtual courses available through e-class: ENG GRAD PD 01 and ENG GRAD PD 02.

Step 1: ENG GRAD PD 01 (IDP and 4 Hours Faculty of Engineering Related Workshops)

Students can self enroll in this virtual course at this [link](#).

Information on ENG GRAD PD 01 (Faculty of Engineering IDP and 4 hours PD requirement) can be found [here](#).

ENG GRAD PD 01 is an **eClass course** to be used for submitting the signed review documents of the student's Individual Development Plan (IDP), and to track participation in the selected Professional Development sessions, focusing on engineering-relevant career skills. More information is available at the following:

[Individual Development Plan](#)
[Engineering Sessions and Workshops](#)

Step 2: ENG GRAD PD 02 (Minimum of 8 Hours FGSR Professional Development)

Students can self enroll in this virtual course at this [link](#).


Information on ENG GRAD PD 02 (FGSR 8 hours PD requirement) is available [here](#).

ENG GRAD PD 02 is a **system to track** verifiable Professional Development offered by the Faculty of Graduate Studies and Research (FGSR) conference workshops, NAIT courses, etc. Verifying 8 or more hours of Professional Development activities must be documented in ENG GRAD PD 02.

[FGSR Sessions and Workshops](#)

Step 3: Completion and Submission to Department

Once students have completed all the activities for both PD 01 and PD 02, they will need to **fill out the completion forms and have them approved**. The completion forms for ENG PD 01 and ENG PD 02 can be found in the [CME Department's forms cabinet](#) r n m

Both forms will need to be approved and signed off. For MEng students this would be their Supervisor/ Career Mentor and also the Graduate Associate Chair. Once signed, the student can then submit the completed PD/ IDP to a CME Graduate Assistan 

7. Masters Program

7.1 MSc Program

The requirements for the MSc degree consist of successful completion of **course work**, participation in **seminars**, completion of the **ethics** course ENGG 600, completion of three

Note: ENGG 600 is currently (2021-2022) being phased out for INT D 710 and INT D 720. Those enrolled in a Masters Program must take **INT D 710**.

The MEng minimum course requirement is **four courses plus the ethics course**. At least **two courses must be 600 or higher level courses in the Department of Chemical and Materials Engineering**.

The **remaining two courses must be at the 500 or higher level in the Faculty of Engineering**, or at the **400 or higher level in a Science Department**.

The course program **must be approved** by the Associate Chair (Graduate).

In addition, students must fulfill the **professional development requirement**.

Under normal circumstances, it should be possible to complete the project within four to six weeks of concentrated work.

The **capstone project** is to be selected and then completed under the supervision of a faculty member in the CME department, with the work being recorded in a report which is evaluated to determine if the student has passed or failed.

Under normal circumstances, it should be possible to complete the project within four to six weeks of concentrated work.

Students are to select the topic for the project in consultation with the prospective supervisor before the term in which they register for CME 900. The project topic may involve research investigations, design calculations or in some cases, a literature review. **In the term in which they register for CME 900, students must complete the work and a report** on the same topic, and obtain and incorporate the supervisor's feedback on the report. The completed report is evaluated by the supervisor and another person at arm's length (who is chosen by the Associate Chair for Graduate Studies). **The entire process is to be completed in the same term.**

The guidelines for the report are:

The main body is expected to be between 5000 and 10000 words.

The report is to be written in 12 point font (Arial/Calibri/Times New Roman) with double line spacing and 1 inch margins all around.

Ideally, the front portion of the report would have:

an executive summary

a table of contents

a list of figures/tables

nomenclature/definitions.

The main body of the report would include:

an introduction

a literature review/foundational information
a problem statement
a methods section
results and discussion
conclusions/recommendations
references

For easy reference, save this outline in a separate document.

8. PhD Programs

The requirements for the PhD degree consist of successful **completion of course work**, participation in **seminars**, completion of the **ethics** course ENGG 600, and completion of the **professional development requirement**.

Note: ENGG 600 is currently (2021-2022) being phased out for INT D 710 and INT D 720. Those enrolled in a PhD Program must take both **INT D 710 and INT D 720**.

In addition, PhD students must successfully **defend their thesis** which embodies the results of independent research at the end of their program (PhD final oral exam). Please refer to the document on Exam Procedures in the Forms Cabinet of the CME Department's web page for details on the procedures for the PhD final oral examination.

Moreover, PhD students must have made a **presentation** on their work at a conference or an equivalent venue. All PhD students are also encouraged to take on two Teaching Assistantship or three Graduate Positions as part of their program. PhD students **must complete all the requirements within six years** from the time they first register as graduate students.

8.1 Course Work

The minimum course requirement is **six one-term courses** plus the **ethics** course (ENGG 600) and **CME 600** (Introduction to research methods).

Note: ENGG 600 is currently (2021-2022) being phased out for INT D 710 and INT D 720. Those enrolled in a PhD Program must take both **INT D 710 and INT D 720**.

CME 600 must be taken by PhD students in their first year in the program.

At least three courses must be 600 or higher level courses in the Department of Chemical and Materials Engineering.

The remaining courses must be at the 500 or higher

8.3 Candidacy Examination

The Faculty of Graduate Studies and Research requires that a PhD student pass an oral Candidacy Examination. Please refer to the document on Exam Procedures in the Forms Cabinet of the CME Department's web page for details on the procedures for the PhD candidacy examination.

The Department of Chemical and Materials Engineering (CME) has specific regulations:

- A. The Candidacy Examination **must be held within 16 months of initial registration** in the PhD program for full-time students.
 - a. **Part-time** PhD students must complete the Candidacy Examination successfully by **3 years** of initial registration.
 - b. A different (shorter) deadline will be imposed in cases where the student has entered the doctoral program through a change of category from a Masters program in the CME Department (see below).
 - c. No financial support from the department will be available to students who do not meet this deadline. Departmental support also includes TA and RA appointments.
 - d. **Students failing to meet the deadline** without compelling extenuating circumstances may also be **required to convert to the MSc program**.
- B. **Full-time** PhD students shall submit a copy of a **Research Proposal within 13 months** of initial registration. The Associate Chair for Graduate Studies will provide details about the format for the submission at the time. Currently, submissions are to be made **electronically** as a pdf document through a Google form created for the purpose.

A student who is enrolled in the **MSc program** and subsequently **converts** (Change of Category) to the **PhD program** is subject to the following rule:

1. The **candidacy report must be submitted within one month of the effective date of program transfer, z,**

Candidacy report (i.e. research proposal) guidelines:

The research proposal should be printed in 12 point font

Do not exceed 20 pages (excluding the table of contents and list of references)

It is highly recommended to include:

- sections on motivation
- background/literature review
- hypothesis/objectives
- methods
- results
- proposed work.

For easy reference, save this outline in a separate document.

9. Thesis Formatting Guidelines

The FGSR **minimum** thesis formatting guidelines are available [here](#).

These are applicable to all theses (MSc and PhD) in the CME Department. An important point to note is that **a preface is required in all cases**

10. Course Inclusion and Exclusion

10.1 Course Exclusion List (all programs)

Regardless of any other statement made within this document, the courses in the following list **will not be counted as meeting part of the requirement for completion of graduate courses**. The following list is **not all inclusive and other courses may not be valid**. Students are reminded that **all course programs are subject to the final approval of the Associate Chair for Graduate Studies**.

INT D 561 Energy and Environment Course (Focus on Oil Sands)
Reading or independent study courses

10.2 Course Inclusion List (all programs)

For the purposes of assessing program course requirements, certain courses from other departments **are considered to be equivalent** to courses in CME at the 600 level. These are:

ECE 540
ECE 560
ECE 561
ECE 662
ECE 664
ECE 665
ECE 760
ENGM 646
MECE 615

Also, the courses **ECE 450 & ECE 457** are equivalent to 500 level courses in Engineering for the purpose of ass

11.3 Satisfactory Research Performance

Graduate students are expected to maintain satisfactory research performance whether they are appointed as graduate research assistants or through a graduate research assistantship fellowship. **The graduate student assistantship Collective Agreement specifies the procedure for dealing with unsatisfactory performance.**

For information about the Collective Agreement, contact the Graduate Student Association (GSA).

12. Financial Assistance

Full-time graduate students admitted to the **MSc**

TAs assist a faculty member in teaching and may be responsible for portions of class development, seminar preparation and delivery, and holding office hours to answer student questions.

Graders/markers are primarily responsible for marking assignments in a timely fashion and maintaining a grade book for the recording of marks.

The specific responsibilities for TA and Graders for each course are determined at the beginning of the term by the faculty instructor.

The appointment is usually for one academic term, and exceptional students may be offered additional teaching assistantships for subsequent terms.

GRA appointments are made for the student to assist in the faculty member's academic research, while GRAF appointments are a form of financial assistance provided to graduate students to allow them to focus on their education and training, as it relates to their own thesis.

14. Graduate Ethics Training

Ethics and academic integrity training is mandatory for all newly-admitted University of Alberta graduate students who started their program on or after September 1, 2004.

Students admitted after September 2006 must take and pass the course **ENGG 600**. This course is offered in the Fall/Winter terms and is worth 0.5 CR.

ENGG 600 is currently (2021-2022) being phased out, and will be unavailable as of Spring 2022. To maintain registration and program requirements, **enroll in the new ethic courses INT D 710 and INT D 720**.

Students registered in a **Masters Program** only need to take **INT D 710**. Students registered in **PhD Program** need to enroll in **both INT D 710 and 720**.

16. Copies of Thesis

17. Checking Out

At the **conclusion of your studies, you must return all equipment and supplies** (unless directed otherwise), **keys, tools, etc.**, that you have used.

In particular, irreplaceable items such as **bound theses or books must be returned.**

All garbage and other waste must be disposed of properly and safely.

An “**Exit Form**” must also be completed and returned to the Graduate Assistants after you have cleared out your space.

All keys must be returned to **CME Reception**. After an inspection of your assigned space is completed, the key deposit will be returned.

Please note that it is your responsibility to ensure that your assigned space is left clean for the next occupant.