

Flynn group guide

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Welcome!

Welcome to the group! This document will help set you up for success in the group with key information and expectations. Please speak with Alison or group members with any questions.

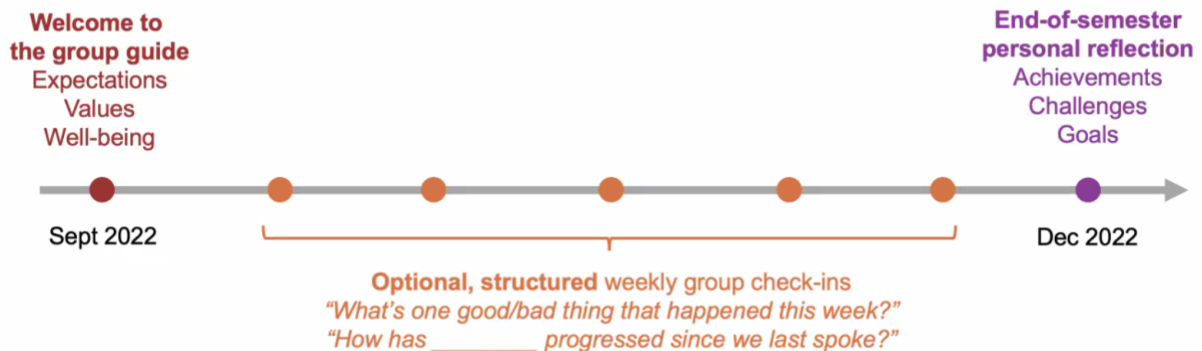
Group goals and values

Our values guide our research and development, our interactions with each other and with others. We are an inclusive group and welcome people of all races, colours, cultures, ethnicities, genders, sexualities. Our group works hard to learn from and respect each other. Our research and development efforts similarly reflect our values to be rigorous, inclusive, and impactful.

RIGOROUS — INCLUSIVE — IMPACTFUL



A bit about how we work



Well-being and expectations

We are all here to grow as scientists, leaders, and people by pursuing ambitious research goals. Graduate school is analogous to a full-time job (and sometimes more). However, that should never come at the cost of your well-being. Your mental and physical health are by far the most important consideration in all that you do while in our lab. Moreover, success should not come at the cost of maintaining your interests/hobbies or healthy relationships in your life. In fact, you are more likely to be successful if you take care of yourself and give time to the things outside of work that matter to you. Below are some general guidelines on well-being, but every situation is unique, and Alison is always open to discussion on this topic, so don't hesitate to ask.

Transition to a research environment: [coming soon]

Mental and physical health concerns. *If you are not feeling well, either physically or mentally, take the time off you need to seek out help and take care of yourself.* If you are struggling with depression or anxiety and wondering: "Is it okay to go see a counselor instead of setting up that analysis?" the answer is "Absolutely! Get the help that you need." If you have an acute situation that requires help, take the day (or a few days) off with no questions asked. If you are going to be out for more than 3 days or miss a group meeting, just give Alison a heads-up so that she knows you are okay – no need to give details if you don't want to, it is sufficient to email and say that you have a "personal health emergency." If you need to take more substantial amounts of time off, you can work with Alison to facilitate this. Being an undergraduate, grad student, or postdoc can be stressful. You can also contact: uottawa.ca/health/services/mental-health or GSAED.
We all care about you and are here to support you – just let us know how we can help.

Personal emergencies. If you are a member of our group for multiple years, the chances that a life situation (or multiple life situations) will arise are fairly high. As an example, Alison recently dealt with a separation and balances her career with being a single parent. In these situations, the top priority is taking care of yourself and dealing with the situation. If possible, communicate with Alison to let her know that you are dealing with something and approximately how much time you will need off. You can share as much or as little detail as possible. These situations are inherently stressful, so also make sure you are taking care of yourself and getting help if needed.

Work-life integration. Being ambitious and working hard are part of our lab culture, but it should come from a perspective of driving yourself out of the fun of pushing your limits and exploring what you are capable of. The key is to know your limits. Similar to playing sports, you advance by pushing out of your comfort zone, but if you push too hard you end up injured and stuck on the sidelines. Managing your motivation and work habits while integrating interests and commitments outside of work is a key self-leadership skill that will serve you well throughout your career, and now is a great time to build that skill. You can get

useful tips and advice on this from Alison, your labmates, and other resources (books, podcasts, etc.).

Vacation time: two weeks annually (grad students and post-docs), plus university closures over the December holiday and statutory holidays (not reading weeks).

– Adapted from Jen Heemstra, Emory University

Lab book

Please keep a lab notebook with research questions, hypothesis, memos, methods, and results (a physical or electronic book). Your lab notebook should never be taken out of the lab or office, or always be synced on Drive.

Your lab book is something you should be proud of. It should show anyone reading it (and trying to follow your work) that you are a thorough researcher. Your lab book will remain in the group for years after you have moved on. Include:

- Table of contents in the first 5 pages
- Dates and page numbers
- Research details (e.g., what program did you use, what analyses did you do?)
- Filenames (where can we find the things you worked on?)
- Observations, reflections, results
- Make sure a colleague can repeat your work without extra information
- Your lab book is the group's property. Always notify your supervisor if you plan on taking it out of the lab. It stays in the group after you move on.

Fill out your lab book as you conduct your research (not after).

Resources

Chemistry Education Research

For an introduction about educational research and CER (in the recommended order)

- Elgie, S.; Childs, R.; Fenton, N. E.; Levy, B. A.; Lopes, V.; Szala-Meneok, K.; Wiggers, R. D. *Researching Teaching and Student Outcomes in Postsecondary Education: A Guide*; Higher Education Quality Council of Ontario: Toronto, 2012.
- Bunce, D. M. Constructing Good and Researchable Questions. In *Nuts and Bolts of Chemical Education Research*; 2008; pp 35–46.
- Educational Research Textbook, e.g., Creswell
- *Discipline-Based Education Research: Understanding and Improving Learning in Undergraduate Science and Engineering*; Singer, S. R., Nielsen, N. R., Schweingruber, H. A., Eds.; National Academies Press: Washington, DC, 2015.
- [Nuts and Bolts of Chemistry Education Research](#)
- [Tools of Chemistry Education Research](#)

More specific resources

- Qualitative Research and Evaluation Methods, Patton
- Discovering statistics using IBM SPSS statistics, Andy Field

Group meetings (Weekly, rotates among 4 types)

Prepare thoroughly when you are presenting, as if you were presenting at a conference or in a course. Group members are always happy to offer suggestions. Please upload your slides in advance to the *Group meeting* folder on Drive.

- Literature presentations (monthly): one group member presents an analysis of an article.
- Communication meetings (embedded in weekly meetings): Practice/analysis of writing and oral presentation skills
- Research presentations (3 presentations/month): mini progress reports
- Skype presentations: we invite an author of a recent paper to give a 20-minute presentation on their article and we discuss/ask questions for about 20 minutes afterward.
- Chemistry learning sessions

Seminars

- Graduate course seminars (organic) are Tuesdays at 1:00 pm, DRO 214 – **mandatory** for PhD students
- Departmental seminars (visiting speakers) are Wednesdays at 11:30 am, DRO 214 - **mandatory**
- Biomolecular network and CCRI seminars (prof and student presentations) as announced (monthly) - optional

Progress reports (these will become your thesis and papers!)

First one due after your first month, subsequent ones are due on the last day of every semester. See the Progress Report Template document for details.

Key links

Group communication: Slack

- Please use the project channels for most messages and direct messages for private ones
- Only use email if absolutely necessary

Project management: Asana

- Use for all tasks and some communication (non-confidential)
- Assign a person responsible and a deadline
- Make each task an action not a topic
- Options: Subtasks, many different views (e.g., per person, project, completed)
- We keep shared documents on Drive rather than sending multiple versions back and forth on asana
 - *****Important! Keep your files synced in our group folder on Drive**

Flynn homepage: FlynnResearchGroup.com

- Group news
- Key databases and journals (links)
- Group profiles
- ChemDraw link (for free software)

Group documents

- All group documents are kept on the Flynn Research Group's Drive.
- **You must keep all your project documents synced at all times!**
- We have a number of "How-to" documents on Drive, such as:
 - Travel to conferences
 - ChemDraw standards
 - Building a research question
 - Giving presentations
- Drive also has all group
 - Presentations
 - Publications, including theses and final project reports
 - Group meeting files, including presentation template
 - Research Ethics Board files
 - Progress report template
 - Books

Supplies

- Science store:
 - Lab notebooks, paper, pens, etc.
 - Ext: 6026
- Intranet:
 - Ordering supplies
- You need a permission form to make purchases.
 - Denzel Huang has details

Administrative contacts in chemistry

Linda Baron: CBS Chair Assistant CBSChairAssistant@uottawa.ca

- Seminar speakers, etc.

Annette Campeau: CBS Admin Officer (Annette@uottawa.ca) CBSAdminOfficer@uottawa.ca

- Contracts, pay, grants

Hajar Khedid: CBS Financial Assistant CBSFinancialAssistant@uottawa.ca

- Main Tasks
- Travels
- Cost recoveries
- Keys
- Room Reservations assign to our department

- and others

Victoria Theriault : Assistante Administrative et Académique : cbs@uottawa.ca

- Room Reservations assign to our Department and other on Campus
- Keys
- Travel
- Assist Linda with academic any question
- and others

Chemistry graduate studies office: Questions about deadlines, requirements, etc. (also remember to read the grad guide)

Presenting and publishing your work

Once you have a reasonable amount of results, it's time to present! When available, group grants are used to support conference travel and registration.

Travel funding

The Faculty of Graduate and Postdoctoral Studies provides some travel funding.

****Advance permission (including a signed form) is required before school-related travel!**

Presentation guidelines

Getting the opportunity to present your results external (oral or poster presentations) is very important to polish your presentation skills and demonstrates your productivity that is important for scholarship and job applications.

- Presenting externally is an opportunity earned by working hard to get results on your research project and being an involved group member (it is not automatic or an entitlement).
- When presenting at an external conference or forum, you are representing our group and are responsible for maintaining our high standards. Plan and practice your presentations ahead of time, have them checked by colleagues first, then by Alison (please send Alison a presentation at least one week before the conference).
- Official presentations (posters, seminars) by group members are done following specific guidelines (group branding and ChemDraw settings).

Manuscript guidelines

As you begin your project, think about how a manuscript will develop. You can even start writing an outline on day 1!

Here are some manuscript guidelines and considerations:

pubs.acs.org/doi/abs/10.1021/bk-2014-1166.ch016

pubs.acs.org/paragonplus/submission/jceda8/jceda8_CER_Guide.pdf

cdnsiencepub.com/doi/10.1139/cjc-2019-0327

Conferences

Check conference types, locations, and deadlines carefully, then talk with Alison about the ones you'd like to attend. Once you know where you will be submitting abstracts, draft your abstract and ask a group member to review it, then send to Alison for review and approval (at least one week before the deadline).

Local conferences

- Quebec-Ontario Mini-Symposium in Organic Chemistry (QUOMSBOC)
- Ottawa-Carleton Chemical Institute (OCCI) Day

National & International

- Canadian Society for Chemistry (CSC); Canadian Chemistry Conference and Exhibition
- Society for Teaching and Learning in Higher Education (STLHE)
- American Chemical Society (ACS)
- Biennial Conference in Chemistry Education (BCCE)
- Gordon Research Conference (GRC); Chemistry Education Research and Practice and Visualization
- International Conference in Chemistry Education (ICCE)
- Humanities and Social Sciences Congress ("Congress")
- Royal Society for Chemistry (RSC) Twitter Poster Conference
- Methods in Chemistry Education Research (MiCER)
- xDBER

Other avenues to communicate research results and progress:

- Videos
- Twitter
- Workshops (*e.g.*, at conferences)

Getting started in the group

Sign up for Asana

Sign up for [Asana](#) and assign yourself the tasks in this section. ☺

Get keys

1. Complete WHMIS training: orm.uottawa.ca/whmis/office
2. Complete Orientation For New Personnel form: science.uottawa.ca/sites/science.uottawa.ca/files/orientation_no_lab.pdf
3. Complete ethics training: TCPS 2: Core
4. Complete Request for Keys form: See Josée Rouleau DRO lobby with \$40 cash.

More info: <http://science.uottawa.ca/en/faculty-services/health-safety>

RA/TA Contract and getting paid

With a void check (or bank information) and SIN number go see Annette in STEM 342.

Apply for funding (Grad students)

Please apply for funding such as OGS, NSERC, and SSHRC

- [Internal](#)
- [OGS](#)
- [SSHRC](#)
- [NSERC](#)

Other

- Watch Asana's get-started videos, add your photo
- Send our webmaster a photo and short project description for our website
- Start a lab book
- Read and sign the group's confidentiality form
- Read the graduate studies handbook
- Read Elgie, S.; Childs, R.; Fenton, N. E.; Levy, B. A.; Lopes, V.; Szala-Meneok, K.; Wiggers, R. D. *Researching Teaching and Student Outcomes in Postsecondary Education: A Guide*; Higher Education Quality Council of Ontario: Toronto, 2012.
- Assign yourself due dates for progress reports for your full studies in Asana
- Sign up for Slack and join the group
- Get connected with the group's files on Drive. Our files and folders are below:

Name ↑	
How To Documents	
Past group members	Project - Argumentation and reasoning - Deng
Past Projects and Data	Project - Delocalization - Carle, Issa
Personal - Alisha Szozda	Project - Growth and Goals
Personal - Christine Paquette Cannalonga	Project - Landscape of lab teachings - Mesnic
Personal - Denzel Huang	Project - Language of mechanisms
Personal - Emily Duhart	Project - Mechanistic patterns including card sort
Personal - Jacky Deng	Project - Multi-Institution Curriculum Exploration
Personal - Laurence Brisebois	Project - OrgChem101.com Mechanism Module Evaluation - Carle
Personal - Malek Rahmani	Project - Systems Thinking - Szozda
Personal - Natalie Mesnic	Project - Visualization (SSHRC) - Carle, Szozda, Hamer-Wilson
Personal - Nick Streja	Publications including theses
Personal - Romeo Junior El Issa	Publishing guides
Presentations	Recruitment
Progress Reports	TA Resources
	Website

Graduate studies handbook:

[English version](#) | [French version](#)

Registering for courses (graduate student)

Once you're admitted to the school you need to make sure you are registered for your courses on uOZone. Once there go to the application tab and click on enroll. **Talk to Alison about which courses to take; she should approve the choices before you enroll.**

MSc students need to be enrolled in two courses:

CHM 8365 – Communication in Chemistry

CHM 7999 – Research thesis

PhD students need to be enrolled in four courses:

CHM 8257S – Graduate seminar II

CHM 9998 – Comprehensive exam

CHM 8958 – Research proposal

CHM 9999 – Research thesis

You should also take additional credits from the Faculty of Education (1 × 3 cr course for a Masters, 2 × 3 cr courses for a PhD). The courses should align with your project and career goals. Again, discuss with Alison.

Signing up for a Faculty of Education course:

- 1) You need an out-of-program form. (See grad office in GNN 181)
- 2) Obtain signatures and permission from the course instructor and thesis supervisor, then return the form to Lorraine

If applicable, get financial exemption from FGPS located in Hagen Hall.

Teaching Assistant (TA)

As a grad student you will be given a TA position. Application for position in the Fall term occur mid-July and application for the Winter term occur in mid-October.