
Boston University Chemistry Writing Program

Program Logistics

The Boston University Chemistry Writing Program (BUCWP) is a collaboration between the Chemistry department and the CAS Writing Program. The goal of the BUCWP is to teach students in Intensive Freshmen Chemistry the process of research-based writing as it happens in the sciences (specifically, chemistry). The writing mentoring and assignments are an integral component of the CH111/112 courses and students are *required to complete them* in order to pass, even if they will receive writing instruction in other courses (such as Core, KHC, etc.). In recognition of the added writing component of these courses, students who satisfactorily complete the CH111/CH112 (or CH181/CH182) course sequence will satisfy BU's research-based writing requirement (WR150)¹.

Writing Goals of CH111/CH112

The major writing goal of CH111 is to introduce and develop the approach used by experts when engaging in scientific communication, from collection of data to communicating the outcomes. As with all of the other aspects of the course (analytical techniques, data processing and statistics, chemical concepts), the writing skills will be introduced slowly throughout the course. We will start with all of the necessary pre-writing skills a scientist needs, before turning our attention to the writing style that will be of most use to a scientist: the journal article.

Inextricable from the process of scientific writing is also a mature understanding of how other results and published studies relate to the current state of scientific knowledge. Through our work in this program, students will develop the tools to effectively perform research using journals, reviews, and online databases. Finally, in the second semester of the course (CH112), we will investigate other genres/themes of chemistry writing, collaborative writing, and multimedia communication.

By the end of the CH111/112 course sequence, students completing the BUCWP will have achieved the following outcomes:

- Students will understand the importance of good writing in the sciences, and they will be able to plan, organize, and then form well-structured written arguments relating to their experimental observations.
- Students will be able to bring backing and support for their arguments based on careful reading of prior scientific works and seminal papers in the field. They will be able to identify strong sources for their arguments and differentiate them from weaker sources.

¹Pre-medical students should be advised that some medical schools require two semesters of English and may not accept this equivalency for their admissions process. Those students should make sure to speak with their pre-med advisor about how to satisfy this requirement, but students completing CH111/112 should **not take WR150** at Boston University.

- Students will investigate and understand how different writing styles and genres apply to different communication goals in science – publishing papers, writing research proposals, and making conference presentations.
- Students will be able to integrate graphic and multimedia elements into their scientific writing, as appropriate. Exhibits – figures, tables, equations, and images – are some of the cornerstones of the grounds upon which scientific communication are based. Learning how to craft, engage, and deploy these exhibits is something that each student will be able to do by the end of the program.
- Students will be to perform research in the scientific literature in order to better understand their projects, and engage in the discourse in the field. To that end, they will be able to ethically engage with prior scientific studies and works with comprehension and critical discernment, including the ability to use proper tools and approaches to identify materials.
- Students will understand the role of mentoring in the process of scientific inquiry and communication, including the role of peer-review and responding to the feedback of mentors.
- An important component of CH112 is the capstone project, in which students will work collaboratively on a group research project. This will be the culmination of this program, and students will demonstrate that they have a good understanding of the overall research process and its component parts. This process will include gathering and analyzing information, and critiquing, interpreting, and communicating their findings.

Meeting these goals, students who complete the CH111/112 writing program will receive BU Hub credit for WR150 and Research and Information Literacy.

Writing Fellows

The writing instruction that you will receive will come in several forms: periodic brief lectures (during pre-lab lecture) that introduce new writing concepts, videos posted on the course website, writing chapters at the end of the lab manual that explain the ideas in more detail, and writing fellows (WFs) that will mentor you in your development of scientific writing skills. The vast majority of the writing instruction that you will get will come from the writing fellows. Your WF will read and comment on all of your submitted writing assignments, after which you then be required to attend a 20 minute conference with your WF. Following your conference, you will refine your work and submit a final version of your work. While your WF's primary responsibility is mentoring and instruction, they will also evaluate your work and your compliance with the program.

Note: While the writing fellows are all science experts in chemistry or a closely-related field, they are not going to offer advice on the *science/chemistry* of your work. Rather, they will serve as teacher and mentor for the writing and scientific literacy only.

Here is the timeline that we will follow for writing revisions:

Week 1, Wed: Submit writing assignment to WF via blackboard. This is not your post-lab assignment; rather, it is a specific writing assignment based on your lab work.

Week 1, Wed/Thurs: Receive and read comments from your WF.

Week 1, Thurs/Fri: Mandatory conference with WF to discuss your assignment

Week 2, Wed: Revision of the assignment is due to your WF (on blackboard) **before** lab.

Some important details:

- Conferences are for individual students with their chosen WF
- Like all assignments, writing assignments must be submitted on time. Please be mindful and always submit on-time.
- Please be prompt to your writing conferences. Writing conferences tend to be back to back, so late arrival will substantially impact your ability to derive benefit. We can only provide a single conference per student; a missed conference will result in a loss of the ability to meet with your WF and, by way of consequence, a loss of credit.

Revision Process in CH111/112

The vast majority of the assignments will follow this sequence:

1. *Preparing for pre-lab*: students will prepare for pre-lab lecture by reading some sections of the lab manual on writing and watching some short videos.
2. *Instruction in pre-lab*: some time in lecture will be devoted to discussing the upcoming writing assignment. A handout will be circulated at, or ahead of, this lecture.
3. *Submitting the assignment*: based on the lecture and the handout, you will prepare a **polished**, final draft of the assignment. Here, ‘draft’ does not refer to the first thing you write down on the paper, but rather a good attempt at mastering the new material. This is what you are submitting, and your writing mentor (your WF) will help you refine and improve upon it. *Note*: the better the first submission is, the more benefit you will get out of your mentor.
4. *Preparing for the conference*: after having submitted your assignment, the WF will post their comments to the blackboard site with enough time for you to read your comments before attending the conference – you can arrange a time with them. Make sure to read all of the comments ahead of your conference and be prepared to ask questions of your WF.
5. *Conferencing with your writing fellow*: this is the most important component of the program. One-on-one instruction is the best way to improve; come to the conference with the following:
 - (a) A printed copy of the commented assignment,
 - (b) the handout on the current section,
 - (c) your writing manual, and
 - (d) a list of questions about the comments.
6. *Submitting your revisions*: after your conference you should work through the suggestions and prepare a strong revision of your assignment. It is best to work on this revision as soon as possible after the conference in order to capitalize on the advice you received while it is still fresh in your mind. The final revision is due one week from the date that the first draft was submitted. A good portion of your evaluation will come from the revised assignment.

Submitting Work to the Writing Fellows

All file exchange between students and WFs will happen using Blackboard (learn.bu.edu). After signing up with a writing fellow (details will follow in an email), they will add you to a private *group* on the course blackboard page². To submit a file: (1) log on to the course page, navigate to your group, and click ‘File Exchange.’ This is where you will be able to post files for your WF to download them, and where your WF will post commented assignments.

All files must be submitted as **PDFs** and must be named using a reasonable naming convention. We highly recommend adopting a convention such as the one in the table below. Note: naming a file when submitting the file on blackboard alone *does not actually affect the name of the file*. If, for instance, your lab is named ‘lab6.pdf’ on your computer, then it will upload as ‘lab6.pdf’ no matter how you name it on blackboard. Making sure to name the file with a reasonable naming convention **on your computer** will ensure that no files are lost and that you get 100% of the credit that is due to you.

Component	Naming Convention	Example
Submission	last name first initial-WR#.pdf	hwongj-WR1.pdf
WF Comments	last name first initial-WR#-comments.pdf	hwongj-WR1-comments.pdf
Revision	last name first initial-WR#-revised.pdf	hwongj-WR1-revised.pdf
Final Comments	last name first initial-WR#-revised-comments.pdf	hwongj-WR1-revised-comments.pdf

The examples in the above table are for student Julia Hwong’s files associated with writing assignment #1. (Notice that everything is lowercase.)

List of assignments

The writing components are spread evenly throughout the CH111 and CH112 lab courses. In general, there will be 4-5 assignments (each with mentoring, review, and redrafting) per semester. The lab syllabus lists all of the exact dates for the assignments related to the BU Chemistry Writing Program. Those schedules can be found at: <http://people.bu.edu/abramsb/courses/ch111/schedule.html>.

Remember:

Writing Fellows will not give extensions on writing assignments, accept late work, or reschedule missed appointments. It is critical that all students keep all due dates and meetings in order to satisfy the requirements of the program and the class and to receive WR150 equivalence.

²Check to make sure that your group has been made. If it hasn’t, please confirm with your WF.