Applying to Graduate School

Worksheet 1: General Overview

1. Do I want to go to graduate school?

Do you love science? Have you enjoyed doing research? Are there jobs in which you may need additional scientific training to be qualified? There are many personal and professional motivations to go to graduate school. The choice is yours.

Getting a Ph. D. in the sciences takes an average of 5-6 years. It can be filled with both excitement and challenges. Talk to your professors, Bowdoin alumni, and seminar speakers about their graduate school experience. Talk to second-semester senior chemistry and biochemistry majors who applied to graduate school. Attend regional and national conferences that include workshops on graduate programs. Make an informed decision.

**Most Ph.D. graduate programs in the sciences have free tuition and offer yearly stipends. These programs also provide financial support to accepted students to visit their campus and meet the professors and graduate students.**

Note: Some students may want to go to graduate school but are afraid that they will not be accepted to programs. Graduate schools consider a variety of factors in selecting students. Although undergraduate grades and breadth of course work are important, a strong showing on the Graduate Record Exam (GRE) can go a long way toward compensating for a modest grade point average. What is most important is evidence of independent research, especially a successful senior project. Do not be afraid to talk to your professors if you are interested.

2. When should I apply to graduate school?

Applications for many graduate school programs are due in the fall and winter. Applying to graduate school is a big time commitment, so plan accordingly. Students who decide to apply in the fall of their senior year will, upon acceptance, start the following fall; some schools will allow students to defer for a year but only under special circumstances. Students may also choose to work before applying to graduate school. It is often advantageous to apply early. The choice is always yours.

3. How do I apply to graduate school?

Before you start the process of applying to graduate school, you will need to select schools with programs and faculty that support your research interests. In general, you should plan to apply to several programs. The quality of the program matters, but more than the school name brand, there should be faculty members doing research you would like to pursue.

How do you begin to find the most appropriate programs? Begin by asking your professors, especially those whose research interests are in an area in which you plan to continue your studies. If you are interested in applying in the fall, approach the professors earlier rather than later: spring or summer. Examine appropriate journals over the last five years and tally up which universities seem to be the most active in publishing in your field of interest. Talk to seminar speakers who are in your field of interest. The ACS Directory of Graduate Research (available in the library and chemistry office) is a very useful resource.
for learning about different graduate programs. US News Report also has a list of graduate programs, and you can go directly to the Chemistry/Biochemistry/etc. website of the listed schools.

As you start narrowing your choice of schools, talk again with your professors. They may provide further insight into the programs or provide feedback on the breadth of your choices. They may also direct you to alumni at the programs of interest. You can learn a lot from student colleagues who have more recent and relevant experiences and impressions to share. Ask about graduate student life, the quality of life and sense of community in the department and in the local town or city and their advice on factors to consider in identifying programs.

During this search, you can directly contact faculty at the graduate program of interest. This type of contact can be used to explore potential research opportunities that are (or are not) available in the faculty’s labs and may provide insights about the newest ideas and directions of the lab in ways that may not be reflected by information on the web. The student is strongly encouraged to talk with their advisor on how to best initiate such contacts before proceeding.

When you have finalized a list of programs, it is your responsibility to go to each school’s website and find the program application and list of requirements. Usually, applications consist of personal/research statement, letters of recommendation, transcript, and GRE & subject GRE scores. GRE tests are usually offered year-round (www.Ets.org/gre), while subject GREs are offered in September, October, and April (https://www.ets.org/gre/subject/register). Make sure to spend time on your personal statement. You can always ask your professor or advisor for advice. If you do decide to apply, be sure to also ask professors in advance for letters of recommendation and not the night before the application is due. More information on the application process can be found in Worksheet 2.

4. Are there costs associated with the application process?

The costs associated with application to graduate programs can vary: from free to $100+. For students who demonstrate financial need, many programs have methods in which you can apply for a fee waiver. There are additional costs for the GRE, and students with financial need should consider applying to the GRE Fee Reduction program. The cost of applying should never be the deterrent to applying. Please talk with your professor or advisor if this is a concern.

5. While many graduate schools in the sciences will provide stipends, are there fellowships that will provide more support?

There are many fellowships that are open to students in the sciences. Fellowships provide not only financial support but sometimes also offer unique opportunities (conferences, international experience, etc.) and some freedom in choosing groups once you arrive at graduate school. Students should look through the multitude of options listed on the Bowdoin website under the Graduate Study and Databases tabs (www.bowdoin.edu/student-fellowships/national-fellowships/). Some of the most common graduate fellowships in science (NSF, DOE, DD, Hertz) have due dates in the fall, so please look through the Bowdoin websites earlier, rather than later. Again, if you are interested, many faculty members will be happy to support you through the process.