Writting a personal statement can be the most daunting part of preparing a graduate school application. Your grades and GRE scores are just numbers, but the personal statement is, well, personal. The whole purpose of this statement is to reveal something about you.

Your aim should be to reveal not only that you are well-prepared for graduate school in general but also that you are particularly suited to the program for which you are applying. So, while you can have a common essay framework that you use for all your applications, you must tailor your applications for each school. Because of the customization that’s required, preparing a good statement takes some research, which in turn takes time. Begin working on your essays early in the fall semester of your senior year so you can meet the graduate school application deadlines without pulling all-nighters that interfere with your grades.

Most graduate school programs ask for a statement that describes your research experience and career goals in one to two pages. In your essay, then, you need to talk a little bit about your past and a little bit about your future. However, don’t make the mistake of beginning your essay with a statement along the lines of “I have been interested in chemistry ever since I was a little kid” or “Being a chemist has always been a dream of mine.” Such trite approaches don’t provide any useful information to the reviewing committee, and believe me, they have read it before. Include only extraordinary pre-college science experiences. For instance, you should definitely write about participation in the U.S. National Chemistry Olympiad or the Intel Science Talent Search. However, having a great high school AP chemistry teacher isn’t all that unusual (thank goodness!) and says more about the teacher than it does about you.

Describe your research experience

Discuss your research experience. Most admissions committees want to see that you understand the nature of research. While coursework can provide you with basic laboratory skills, it rarely gives you a good idea about the (sometimes frustrating) pace of research. No program wants to admit a student who is going to quit the first time an experiment doesn’t work. For this reason, undergraduate research is practically a prerequisite for graduate school. Fortunately, undergraduate research can take place in several different settings, including at your home institution, at a summer Research Experience for Undergraduates (REU), or through an industrial internship. Some students are even lucky enough to have experienced more than one of these options. In any case, talk about the overarching goals of the project(s) and what you specifically contributed. Point out uncommon skills that you acquired through your research (e.g., software, methods, instruments, or reactions that most undergraduates wouldn’t have practiced).

Address how this experience influenced your desire to attend graduate school. If appropriate, comment on any obstacles or difficulties you surmounted to show that you have the perseverance necessary to succeed in graduate school. If you have presented your research in a formal setting or expect to have it published, provide the appropriate references. Publications and presentations show the committee that you can communicate your science
and that you can bring projects to completion. If for some reason you haven’t had an undergraduate research experience, you will have to convince the committee that your other experiences have sufficiently prepared you for graduate school. Possible approaches include writing about any projects you may have completed within the context of an instructional laboratory. Alternatively, you may be able to discuss what you learned from attending research seminars or conferences. There really is no substitute for research experience, so try your best to get some before you begin your application.

Discuss your career goals

Talk about your career goals. You may not have firm career plans yet, but if you are already set on an academic or industrial career, explain how you came to that decision. More importantly, you need to explain why you think this program will prepare you best for that career path. Make sure your goals align with the education the institution provides. For example, if you are convinced that you want to become a professor at a research-intensive university, it doesn’t make much sense to apply to a school that sends all of their graduates to industrial careers, or vice versa. Doing so will show the admissions committee that you haven’t done your homework — not a great argument for admission to a research program! If you are uncertain about your career goals and would like to keep your options open, say so. Explain why you think this institution and their curriculum will enable you to do so.

Tell the admissions committee what type of chemistry you’d like to study. If you want to study, say, bioinorganic chemistry, explain how that interest developed. Is it because you really loved both inorganic and biochemistry courses, and see this field as the perfect marriage of your interests? Is it because you’ve done research or an internship in the area? Have you taken a special course in the area? Show the committee that you have given some serious thought to this question. However, don’t be worried that you are painting yourself into a corner. Admissions committees understand that your interests are evolving and that, even as you apply for graduate school, you still have a semester of your undergraduate curriculum left to explore. Many students indicate one interest area (or more) in an application but ultimately decide to pursue another specialty when they begin graduate school the following fall.

Explain program fit

Once you have explained what you want to study, you need to explain why you want to study it there. Obviously, this section of your essay also requires customization. You are wasting the admissions committee’s time (and your own) if your interest lies in bioinorganic chemistry but you apply to an institution that doesn’t have a single bioinorganic chemist on the faculty. Aim to list two or three faculty members whom you’d like to work for, and highlight the aspects of their research that appeal to you. Don’t go overboard, though; you don’t need to rewrite their research brochure. (The admissions committee should be quite familiar with their own faculty members’ research interests!) Of course, your research interests should support your career goals. When your stated goal is to work in a pharmaceutical company, the admissions committee will be puzzled if you express interest in working for a gas-phase physical chemist.

Relevant extracurricular activities can be briefly mentioned, especially if used to illustrate a specific point. For example, if you completed an honors thesis as a varsity athlete, you know something about time management! Teaching or tutoring experience may show the committee that you’ll be able to handle the first-year teaching assignment. Leadership in the ACS student chapter will show that you have an interest in chemistry that extends outside the classroom or laboratory. Involvement in other activities may show the committee that you are a well-rounded person with interests outside of science.

Proofread, proofread, proofread

Once you have written your statement, you should proofread it carefully. Essays with grammatical, spelling, or typographical errors will reflect poorly on you. Statements that mistakenly refer to schools other than the one to which you are applying are especially embarrassing and may convince the committee that you lack attention to detail. Particularly if you are not a native English speaker, ask someone else to read your statement. While confusing or muddled statements may not sink your chances for admission, they certainly won’t improve them! Your college or university writing center may be able to help you improve your application essay.

Preparing a thoughtful personal statement can be a useful exercise that helps you clarify your goals and narrow your graduate school choices. Remember, the personal statement is just one piece of the application puzzle. Once you are admitted, you’ll have the chance to visit the campus so the faculty can meet you in person. At that point, the admissions committee has already decided that you are a good fit for their program, and you will have the chance to decide whether you agree!

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