

THE PERFECT RECOMMENDATION

How academics with lots of demands on their time can write a useful reference letter.

Undergraduates need them for graduate-school applications; PhD students and postdocs use them to apply for fellowships and jobs; senior scientists often have to have them to apply for awards and promotions. But writing an effective and personal recommendation letter can be time-consuming, especially for academics who must juggle grant applications, manuscripts, teaching and student supervision. And some might struggle to say the right things to support a former employee or student in their career move, while sounding original and unique.

Nature spoke to three experienced professors to get their tips for writing the perfect recommendation letter.

ELIZABETH NANCE CREATE A PROCESS— AND TELL YOUR STUDENTS

For five years, as an assistant professor, I have written recommendation letters for 15–20 students each year. I commit a significant amount of time to make each letter personal.

In preparing letters, I follow a defined process, outlined on my website, that I make clear to my students. They should ask me at least four weeks before the letter deadline – and I do not always say yes, because I might not know them well enough to write something compelling. Once I agree to write a letter, students should send me an updated CV, a draft of their application essays and notes about why they are applying for this particular opportunity.

In every recommendation I write, I aim to comment on the individual's traits beyond the classroom or laboratory when I can do so meaningfully. For example, students who organize events demonstrate abilities in project management and troubleshooting that go beyond the prescriptive nature of most classroom assignments. I think these aspects of a student's life are important to capture, and should be treated similarly to highlighting academic and technical achievements.

Occasionally, I'll seek input from graduate-student mentors in my lab, or even faculty members if they can provide examples or comments.

Creating a process for my students to request a letter, and making sure they know about it well in advance, has been useful in allowing me to produce quality letters for students and to communicate clearly what I need to write a strong letter.

Elizabeth Nance is an assistant professor of chemical engineering, University of Washington, Seattle

ALEX SHALEK MANAGE EXPECTATIONS ABOUT WHAT YOU CAN SAY

A good recommendation letter needs to speak to its audience. When I am writing letters for students who are applying for jobs or admission to academic institutions, I not only emphasize their strengths, achievements and potential, but also try to convey a sense of what makes them a potential fit. When I am writing letters to nominate colleagues for awards, depending on the particular opportunity, I might place stronger emphasis on their achievements and contributions to a field, or on their track record of mentorship, to aid the panel in their judging. I feel that a good letter writer should consider the purpose of the recommendation and present information that helps to properly inform readers to that end.

Before I agree to write such a letter, I try to have an open conversation with my student or colleague to let them know what I can and cannot say. For instance, when I write letters for undergraduates who have taken my class and are applying to graduate schools, but with whom I've otherwise had limited contact, I emphasize that I can comment strongly on their class performance but not their character or research achievements, for which I have limited evidence. To me, this is important for cultivating a sense of trust with those who read my letters now and in the future.

A clear conversation with a student or colleague about what they're hoping for in a letter helps me to understand how they would like my letter to be read in the context of their entire application package, which could include a personal statement, additional documents and other letters. Whenever possible,

I want my writing to highlight the individual and 'fill in the gaps' left by the other documents. These frank conversations allow me to understand the individual's ambitions and goals. With students, this helps me to mentor them on a deeper level going forward, and with colleagues, it enables deeper and richer interactions in the future.

Alex Shalek is an associate professor of chemistry, Massachusetts Institute of Technology, Cambridge

DINO DI CARLO TELL DETAILED STORIES WITH COMPELLING EXAMPLES

Over years of reading recommendation letters for graduate students, postdocs and junior faculty members, I took note of techniques that I found compelling. One of them is using stories rather than a standard 'list' format to emphasize a candidate's positive traits. Often, candidates will all sound the same in letters and will have the same positive traits listed – so one that comes with a story that demonstrates the applicant's skillset will ring more true.

Rather than simply writing "Applicant A is a compelling speaker," for example, I might write, "Applicant A's storytelling skill during his talks is so compelling that other group members have asked him to provide separate training sessions in public speaking." And "Applicant B is a good collaborator" doesn't have anywhere near the same weight as "Applicant B leads collaborations with five different groups, which led to two funded collaborative grants." The bottom line is that letters with more detail will count for more. Now, before I start writing, I first think of two or three key accomplishments and traits of the candidate, and tell a story based on them.

In telling the story, I use bolding and underlining to highlight key points or accomplishments. In this way, the reader does not have to keep a lot of complex or nuanced ideas in mind and can easily refer to key points that are highlighted. For instance, for candidates going for academic positions, I normally highlight their experiences in grant writing.

Writing recommendation letters is great fun – it allows me to reflect on my interactions with pupils, remember the creative times together and promote them in their future careers. It is like flipping through old photos to pull out the best shots: inevitably, you find yourself nostalgic.

Dino Di Carlo is a professor of bioengineering, University of California, Los Angeles

These interviews have been edited for length and clarity. **Interviews by Andy Tay.**