

Pursuing a Faculty Position in the Sciences

Nancy C. Hinkle
University of California

Students job-seeking in the sciences need to consider all components of the search, in order to maximize their chances of getting the job they want. The application process involves constructing a strong curriculum vitae, preparing for a positive interview, and presenting a powerful seminar. Applicants should consider beforehand questions they may be posed during the interview, as well as information they should seek from the hosting institution. The purpose is to convince the department that you are the individual best qualified for the position.

The most important part of preparation for your job interview already has been done. You already have a reputation—for better or worse. People in your field have a concept of your ability or lack thereof. They have seen you at meetings (you have been attending meetings, haven't you?) and they have perused your publications (assuming you have published).

The following advice is directed primarily toward graduate students aiming for faculty positions in the sciences. Because of my own biases as an entomologist, many of the suggestions and examples are drawn from the biological sciences. As with any advice, some will be useful in a given circumstance, while much will be irrelevant; so take it for what it's worth.

Developing Your Professional Reputation

You want your name to be known in a positive way. There are numerous ways to do this. Write letters. Everyone likes compliments, so anytime you can say something nice, do it. That gives people an op-

portunity to see your name and reinforces it in a positive light. Use the proper format and style for business letters. Any good dictionary has examples in the back. Remember, you want to look and sound professional.

Especially become familiar with the leaders in your area of specialty. Read your discipline's newsletter; learn who the movers and shakers are. Write off for reprints. That puts your name in front of them one additional time; often it even triggers them to wonder what you are doing along the same lines of research. Send your own reprints to people whose work you have followed.

Introduce yourself at meetings. Sure, it is hard to go up cold to someone and start a conversation, but read your program and get an idea of who is talking about what. After hearing someone's paper you can ask intelligent questions—and everyone is flattered and delighted to follow up on their own topics. (Be sure to wear your name tag—you want them to hear your name and see it—makes it more memorable.) Some of us use gimmicks like wearing insect jewelry or tie tacks. But be tasteful because you want to be remembered in a positive way.

Be active in the professional society. Volunteer for committees. Get to know officers and ingratiate yourself to them. A great strategy is to volunteer as projectionist at meetings. Every presenter has to see you twice (to give and pick up the slide carousel) and the moderator gets to know you. Of course, it is important that you do a good job! Enter competitions—paper presentations and poster displays. Join the College Bowl team. Apply for scholarships. Even if you do not get the money, every member of the selection committee sees your curriculum vitae and learns a little more about you. The more people who are aware of your abilities and your availability, the greater the chance that your name will be mentioned when a position arises.

Consider investing in business cards, even while you are a student. They are invaluable at meetings. If you want further information from someone, write a brief line on the back of your business card so they will have a reminder to take back to their office.

The Application

There are many ways you can find out about the availability of a job. Read the back pages of *Science and The Chronicle of Higher Education*. Check the job announcements in professional society newsletters. Visit the placement office at national and branch meetings of your discipline's organizations. If you have established rapport with people in your field, call them up and ask them if they have heard of any openings for which you might be qualified. This is even more effective if you write them first and then call a few days later to save them having to pen a reply. Be polite, deferential, and appreciative, even if they have no suggestions to offer.

Your major professor is your ace in the hole. He or she already has the right contacts and can get your name on the proper grapevine.

Most academic departments have bulletin boards where job announcements are posted. Peruse these regularly. Federal jobs are advertised in a very stylized way. Check with someone at the USDA or other federal agency about how to learn about employment opportunities in your field.

If you have a strong desire to pursue a specific area after completing your degree, and are willing to

undertake a postdoctoral position, study the literature to find out who in the field is doing the kind of work you are interested in. Then write them to find out if they would be willing to take you on as a postdoc. If they cannot fund you, consider writing your own grant and supporting yourself while you work in their lab. Such initiative signals independence and determination.

Most job announcements include lists of the materials that should be submitted as part of the application package. Especially for federal positions, be sure the application is absolutely complete, with every blank filled (or marked NA). Despite your qualifications, you can be kicked out of consideration if you fail to follow directions exactly. Do not be reluctant to call the accompanying number and ask questions if there are things you do not understand.

Other jobs usually list a contact person. It is always a good idea to write a letter of intent well ahead of the application deadline. This signals your interest in the position and alerts them to expect your application (however you still must meet the application deadline). This provides one more opportunity to have your name seen. Ask a pertinent question, but make sure it is appropriate. For instance, ask if they need certified copies of your transcripts from the registrar's office, or if photocopies will be adequate. Or you can ask if you may include manuscript copies of papers that are currently in press. Make the question something reasonable that justifies your sending a letter.

At meetings when I run into someone who mentions a job that may materialize in the future, I ask for their business card. Then when I get back to the office I write them, asking for a copy of the job announcement when it comes out. Depending on the situation, and how well I know them, I may actually go ahead and send a copy of my resume, asking their candid opinion of whether or not they think I would be qualified for the position (I may still apply even if they indicate in the negative). Again, they see my name and it demonstrates that I am earnest about following up on leads.

Include a cover letter when you send in the application. Say something more than "Find enclosed..." I like to use the opportunity to thank them for any previous assistance (like notifying me of the job or sending me an announcement) or reiterate how much

I enjoyed their presentation at the last meeting. If you have chatted, tell them what something they said has meant to you. If you have read a recent publication of theirs, mention an idea you found intriguing. These little things will make them actually read your letter instead of just glancing over it.

If you have a publication come out after the application deadline, but before the committee selects its short list, mail a copy, asking that it be included with your packet. Again, this shows your continuing interest in the position and ensures the search chair sees your name one additional time.

Be sure to notify the people whose names you have included as prospective references. Send them a copy of your most recent c.v. so that in their letters they can give specific examples of your demonstrated ability. In your cover letter you can emphasize the points you would like mentioned by saying something like "You probably have not heard that I recently received a scholarship from ..." or "In case I haven't sent you a reprint of my latest publication, find one enclosed." Alert these people as soon as you send off your application (of course you will have already gotten permission to suggest them as references)—the search committee may call them instead of contacting them by mail, and things may move very rapidly.

The Interview

Even if you are not sure you want the position, act enthusiastic. Focus on the best points. Emphasize how your strengths would contribute to the position.

Turn your disadvantages into advantages. For instance, if you have held a variety of jobs outside of entomology, point out how adaptable you are! It demonstrates that you are capable of conquering new challenges. Convince the search committee that they want the specific abilities that you just happen to possess.

Think ahead. What will be important to them? Try to anticipate the areas you will be questioned in.

Major point: Find out all you can about the people in the department, before you get there. At least for the search committee, and other people in your area of interest, do literature searches to find

out what they have been publishing on. Go back far enough to find out how they got started in the profession. Simultaneously you will discover who their coauthors have been (so you can call those you are well-acquainted with and ask them to put in a good word for you) and what institutions they have been affiliated with (often you will discover that you share something in common—and this can certainly give you further topics of conversation). Demonstrate some personal interest. **Get people to talk about themselves.** Not only will they consider you a brilliant conversationalist, but it takes the onus of carrying the conversation off you.

Do some investigation of the commodity or area you will be serving. If you are replacing someone, find out what areas they were working in. Learn something about the industry (or commodity) in the state or region. If you have a counterpart in a neighboring state, you can learn from them what aspects are perceived as priorities. Regional concerns and problems vary, so find out what is important to the people who will be interviewing you.

In the "firing line" portion of the interview (where they take you into the conference room and take turns asking you questions—particularly what you would bring to the position), you have a wonderful opportunity to drop teasers about other areas of expertise you did not cover in your seminar. Find a balance between being modest, and illustrating your strengths.

Have a game plan. "If selected for this position, what will you work on?" Know their agriculture. What problems are important? Have some special projects picked out. "I would also like to have a project on _____!"

Be sure to use the terms "cooperative" and "multidisciplinary." Have concrete examples of how you could fit into a team approach to the area you are applying for. For instance, how could your project interface with a biological control program? How could it fit with IPM strategies? How could you develop an international component? How could you develop a program where you would be working with agricultural engineers? Plant breeders? Nutritionists? Economists?

Do not compare the department unfavorably with your institution. If you cannot say something nice, keep quiet. In the same vein, do not derogate

your home institution. And be particularly careful not to say anything disparaging about anyone else, their research, or their personality. Do not discuss other applicants for the position.

Have at least some idea of when you could be available to assume the position. The job announcement usually indicates the earliest start date, but successful candidates frequently must fulfil other obligations before making the move.

My Rules For Seminars

In preparing the seminar, use the "keep it simple" rule. Find out the type of seminar you are to give, whether research, teaching, or extension. If the position is a split appointment (for instance, extension and research) you may want to briefly describe some of your extension background and abilities before concentrating most of your seminar on your research.

You, of course, are intimately familiar with your work, but step back and envision it through the eyes of someone who has never heard of this work. Introduce the topic, giving sufficient background so that your audience can appreciate the significance of your discoveries. What organism(s) are you dealing with? If they are not well known, what more common ones can they be compared with? Why are they of interest? Historically, what was known about them? Why did you conceive of this research program? What did you set out to do? Audiences always enjoy it if things do not turn out quite the way they were planned—it helps the rest of us relate. If you are sufficiently secure, poke gentle fun at yourself.

Along these lines, be very cautious about introducing your talk with a joke. A joke that goes over well can be great; one that fails sinks your talk from the start. But if you can share some amusing experience that relates to your topic and does not alienate your audience but instead draws them in, this can be a very successful way to loosen up your audience and interest them in what is to come. Never laugh at your own joke; professional comics know that if people do not laugh of their own volition, no amount of effort will persuade the audience it's funny.

Minimize the use of data slides. Keep the data slides simple—even intelligent people can absorb

only so much at a time. If you overwhelm them, they may become resentful. Everyone likes to be entertained, even while learning. For instance, if ten times as many caterpillars died with compound A as with compound B, show two piles of dead caterpillars—one ten times bigger than the other. You do not have to show number slides to discuss data; use an appropriate picture while you talk about the numbers.

You certainly should not talk down to your audience, but you also do not want to be so far over their heads that they think you are just showing off. Be considerate and review.

Develop a good lead-in to your seminar. You might review your background other projects in which you have been involved, if they will contribute to the overall picture of you as a researcher, but keep it brief. Make sure your seminar has a tight unified structure; do not try to cover too much. Also put a lot of effort into developing a strong conclusion. Recapitulate your main discoveries in the summary, tying them in with real life and emphasizing their significance in the big picture. Finish on a strong positive note (even if it is a variation on the theme "further work should explore ...").

Be sure to leave time for questions. Find out ahead of time (before you start developing your seminar) how much time you have and be sure not to run over. Remember how resentful you get when a speaker runs long? Have you ever felt that way when someone was too brief? "Leave them wanting more." You may even deliberately omit some points, hoping they will be brought up in the question and answer session; often they make a bigger impression this way. Plus, it allows you more influence over the questions you are asked—and reduces time available for obnoxious, off-the-wall questions.

Consider using a handout, such as an outline of your seminar. It will help your audience follow the development of your talk, and it gives them something to take away (people like having something in their hands—again, make sure it has your name on it).

Practice your seminar both alone and with an audience (asking for a candid critique). Consider their suggestions and make appropriate changes. Do this far enough in advance that you can become comfortable with the changes.

Some people memorize their entire seminar; others feel more comfortable having a general idea of what they want to say, but developing the specifics as they go. For an interview seminar I would recommend erring on the side of memorization. This is a stressful situation and you probably will not be as comfortable as before a less critical audience. Write out what you want to say for each slide. Have specific phrases that are associated with each (you might even jot these down on a 3 X 5 card to carry to the podium with you; even if you choose not to use it, it is there if you reach a rough spot or—horror of horrors—go blank).

Make sure you project your voice to the people in the back row and do not mumble. Let your demeanor demonstrate your excitement about your topic. Dress up, but include pictures of yourself in laboratory or field attire to demonstrate that you do not mind getting dirty.

Entering the Lion's Den

Have a good persuasive talk with yourself beforehand. Convince yourself that you are the perfect individual to fill this position—and you can then use the same arguments in your interview.

Do not get stressed out; but by the same token, do not let your guard down. Even when the interview is winding down, you cannot afford to relax. Continue to project the same confident, personable attitude. No matter how tired you are, avoid letting it show (“don’t let them see you sweat”). You may run across some rude character who tries to bait you into an argument; don’t be sucked in. Remain impeccably polite. Remember, good manners and a pleasing personality are almost as important as ability. People should anticipate the opportunity of having you join their department.

Dress and act for the position you aspire to. It does not matter that everyone else looks slovenly, you want to be noticed for your exceptional appearance and performance. Be the best you can be. After you have the job, you can dress any way you want.

Remember, whatever happens it is not the end of the world. If this does not work out, something else will come along.

Finally

What does an employer expect of you? Just that you will do your job? No! He wants you to make his department look good, which makes **him** look good. Try to convince your prospective colleagues that their department’s reputation will benefit from your affiliation. And remember, these people are contemplating having you as a departmental colleague for the rest of their professional lives—make them anticipate the prospect.

Acknowledgments

This summary of points to consider in the job application and interview process was compiled from my own experience along with very helpful advice from colleagues at the Universities of Florida and California.

Preparing A Curriculum Vitae

As graduate students, we have developed our techniques for being “graduate students.” We know the system; we know our place; we know how to perform. But the whole purpose of graduate school (other than hiding from the real world a little longer) is to prepare us for a career. And the way we demonstrate to a prospective employer that graduate school has prepared us for a position in his or her employ is through the resume (and, of course the interview—but we only get an interview if our resume is suitably impressive!).

So, what do employers want to see on an applicant’s resume? Let’s look at some of the major categories.

Head the front page with your **Name, Address, and Telephone Numbers** (home and work). Indicate your **Education**, showing the degree earned, institution, year and G.P.A. (based on a four point scale). For advanced degrees, indicate the titles of your thesis and dissertation.

Employment: Previous positions held indicate several things about you—your innovativeness in finding work, your determination, and your versatility. Obviously those of us who have been in school

all our lives will list research or teaching assistant repeatedly. But it is good to include summer and outside employment as well, especially if it demonstrates some quality about you that can make a positive statement to your prospective employer.

Publications (refereed): If you are going into academia, you have already entered the “publish or perish” world. If you hope to be competitive in today’s job market, you must have at least three or four articles published or in press when you start job hunting. This, of course, varies with the field and with the position. Highly competitive positions in the sciences are going now to individuals who emerge from the Ph.D. program with a dozen or more refereed publications; applicants with fewer are instantly culled.

Publications (non-refereed): This is where you demonstrate that you can rewrite your scientific findings for a general audience. There are trade magazines that would be delighted to publish a good synopsis of your research, if you compose it for the popular press.

Grants: With shrinking budgets, institutions are now looking for individuals with demonstrated ability to garner outside funding. So the resume should include a list of each grant obtained, title, the funding agency, amount, and duration.

Presentations at Professional Meetings: Employers want to see good communications skills. Two obvious places these can be demonstrated are in the publications (written communication skills) and under this heading. Unless they are disseminated, your research results are essentially useless. Realizing this, an employer wants to see that you are able to convey a coherent message to an audience of your peers. Along these same lines, information often needs to be passed along to a more general audience—the consuming public. These skills of distilling your message and translating it into everyday language can be much more challenging than talking in the jargon of your profession. So inclusion of a category of “**Other Presentations**” can be powerful in indicating your versatility.

Teaching Experience: Include courses you have taught or in which you assisted, and your responsibilities. Be sure to include guest lectures in classes for which you were not a TA. And if you have

done volunteer teaching or demonstrations in elementary and secondary schools, include that as well.

Previous Research Experience: While the titles of your thesis and dissertation on the front page may indicate your major areas of expertise, you probably have interests in other areas as well. Give a brief summary of the projects in which you have been involved.

Professional Memberships: List the societies and organizations of which you are a member, along with the years of membership (as “1998 to present”). Student memberships are usually inexpensive and often the membership perquisites (scholarship eligibility, subscription to the journal, reduced publication costs, etc.) are exceptional values.

Honor Societies: If you have been elected to any honor societies, include their names and years of membership here.

Professional Activities: This category allows you to indicate your involvement in societies and organizations which contribute to your professional development. Students should make an effort to attend meetings of groups in their field and get involved in committees and programs sponsored thereby. (An additional advantage is that you get to know important people in your field—i.e., prospective employers—and they learn to recognize your name.)

Other Activities: These can include community involvement and volunteer activities. Again these can indicate that the job applicant is multidimensional, organized (only a well-organized person can take on additional responsibilities in graduate school!), and involved. Try to strike a balance here; it is best not to come across as spreading yourself too thin.

Honors and Awards: While it might appear that this category should have a more prominent place than last, I like to put it on the back page so that anyone leafing through the resume will find a good, solid, impressive finish. If you do not yet have anything to include here, start applying for scholarships and entering competitions (speaking, photography, writing, scholastic, debate, etc.).

Most universities have offices providing further information on preparing a resume, and people there would be glad to help. But it will probably be more productive to approach individuals in your chosen

profession and ask them if they would let you see copies of their resumes and if they would be willing to help you prepare a resume appropriate for your field.

Nancy C. Hinkle is the Extension Veterinary Entomologist for the state of California, based in the Department of Entomology at the University of California's Riverside campus. Her responsibilities include research and extension involving arthropod pests of livestock, poultry and companion animals.

Questions They May Ask You

- What are your goals (short- and long-term)?
- What do you want to accomplish in this position?
- What major project will you first undertake?
- What other projects will you pursue?
- Have you been successful in obtaining grants from NSF? NIH? USDA?
- Where have you gotten grants?
- Is your best work independent or collaborative? Why? Give examples.
- Who do you consider your constituency?
- How can you successfully meet the diverse needs of your various constituencies?
- How will you handle the competing aspects of your appointment (balancing research/teaching/out-reach)?
- What qualifies you for this position? What makes you unique?
- What would you include in specific courses (if your appointment has a teaching component)?
- What concepts would you expect a student to understand after taking your course?
- What textbook would you use in a certain course?
- What classroom experience do you have?
- What are the advantages and disadvantages of this position?
- Be prepared for philosophical questions like, "Can we ethically train students for jobs that do not exist?" or "What is the function of a land grant institution in today's more urbanized society?" or "How do you envision your discipline changing in the next decade?"
- What is your greatest strength? Your greatest weakness? (Again, use this opportunity to demonstrate that your weakness is really a strength!)
- What will be your contribution to the department?
- Why would you want to move to this area?
- Why do you want this job?

Questions You Should Ask

Ask to see your prospective office and laboratory. Find out if you will be sharing space (rearing rooms, prep rooms, formulation rooms, etc.).

Ask how faculty in the department get access to equipment in other departments. Is there good interaction with particular programs (the medical school, computer science, plant pathology, etc.)?

If the position is not new, talk with your predecessor before you go for the interview. Find out what he/she was involved in. Ask about sources of funding. Determine what materials or equipment will be needed to pursue the avenues you intend to explore.

Then during the interview repeat some of these questions to the department head. Get a ball-park figure for anticipated start-up funds. Will the office or lab need renovation? Will the department cover those costs? Will a personal computer be provided or is that expected to come out of start-up funds?

How is billing handled for services and supplies? Telephone? Photocopying? What is the availability of vehicles? To which account are maintenance and expenses charged?

What kind of technical support comes with the position? Is this departmentally funded? Can you get a departmentally funded graduate student?

Find out the ball-park starting salary for the position. The initial interview is not the point for negotiating salary, however. Do inquire about raise and promotion schedules, benefits (educational discounts for family members? University subsidized housing for new faculty?), and costs of living for the area.

What is the tenure process? At what points will you be reviewed? At what level are tenure and promotion decisions made?

What is your anticipated involvement in departmental committees, service, extracurricular activities (mentoring, faculty advisor to student organizations), faculty meetings, etc.?

Ask intelligent questions about the library, areas of specialization, how it is funded, the extent of its holdings. Does the department subscribe to and circulate journals?

Familiarize yourself with members of the faculty so that you can discuss possible collaborative efforts.