General Tenure-Track Faculty Application Insights[1]

Most applications require:
- cover letter (~1 page)
- research statement (5 pages max)
- teaching statement (1-2 pages)
- CV (3 pages might be given as a minimum length)
- 3 writing samples (peer-reviewed publications)

More commonly included in applications: a up to 2-page diversity statement.

Other potential documents that can be requested: a statement that is a summary of your prior work, to have on hand for a few places that request it.

Keep your CV short, concise, and cleanly formatted. Review committees are often looking at 200+ applications…

Teaching Statement

Attachment: a sample teaching statement from one of our recent faculty hires. This is one of the more detailed ones, but hits upon many of the key highlights to include in a statement

Content:
(1) teaching philosophy,
(2) your intended teaching pedagogy,
(3) teaching beyond the classroom, and
(4) classes of interest to teach.

Point (4) should be specifically tailored to the program, listing individual courses with course codes and titles. This is a document that is valuable to adapt to each university.

Points to consider:
- Discuss teaching relevant to the department you are applying to. For example, if you are applying to chemE, you discuss teaching chemE; if your background is not in chemE, this is even more important to briefly discuss how you will learn to teach chemE courses and how you will approach your teaching.
- For many departments, it is important to discuss what core courses you would teach. This is often emphasized in disciplines where the curriculum is conserved university to university (e.g. chemical engineering is a conserved curriculum – course codes might change, but the course topics and course order are the same at pretty much any chemE department). At many universities, your ability to effectively teach core curriculum can be a part of your promotion and tenure evaluation.
- Elective courses are a separate item to discuss, and you can discuss teaching existing electives and/or propose a new elective to teach. Most applicants who do this effectively propose an elective that is a broader area of application of their research expertise. For example, someone who develops semiconductor nanocrystals might teach a course on inorganic nanomaterials. Someone who utilizes machine learning to diagnose specific

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[1] *Prepared by Elizabeth Nance, updated August 2022 – these tips and tricks reflect her opinions and experiences from her time as a faculty candidate on the market in 2014-2015 (12 interviews in ChemE, BioE, BME, Pharmacy, & School of Medicine), from serving on faculty searches (2 searches), co-chairing faculty searches for tenure track assistant professor positions (3 searches) and teaching assistant professor positions (2 searches) positions, and chairing faculty searches for tenure track positions (1 search)*

types of cancer might propose an elective on machine learning applications to biomedical imaging.
- You can also include a summary of your past experience or any scholarly contributions to teaching you might have (webinars, workshops, training programs, editorials, blogs, podcasts, websites, papers, etc)! Note that TA experience is debated as a teaching experience equivalent to teaching as the lead/primary instructional faculty on record, so be careful how you use it. If you use TA experiences in your teaching statement, give specific examples that show instructional leadership and directive (instructional decision making).
- Teaching comes in many forms, so think about where you've gained experience in mentoring, scientific communication, or teaching experiences outside of the lab.

Research Statement

General notes: Some schools vary the length of the research statement, but the shortest I've seen is 3 pages. Most are in the 3–5-page range, with 5 pages generally as the maximum! If a length limit is not specified, I would still recommend keeping it to 5 pages unless you are explicitly given application instructions that a longer length limit is allowed.

Content: It should come across clearly within the first ½ page (recommended) what your research program will focus on, why it matters, and why you are uniquely qualified to lead it. Within any project thrust, you should clearly communicate (1) what the motivation for each project area is; (2) what the goals of each project area are going to be; (3) what tools/resource you will develop/use to carry out the goals (e.g. this should translate in a reviewers head to what skills will your trainees gain in your lab). Most applicants include three research thrust areas that they will work on in their first 5-7 years, and it should be clear the starting point for each research thrust

Potential other aspects to consider:
- Funding mechanisms or organizations that will support your work - can list the target priority funding agencies within each thrust for each thrust or provide a summative approach at the end of the proposal if there is no unique distinction between different thrusts for funding. Keep this concise, as not all review committee members see this as a necessary part of an application to make a determination of candidacy in the first round

- Within each thrust, are there key collaborators you would identify working with that would expand the research impact? Including some indication of who you would collaborate with could make it easier for the review committee to see how you would "integrate" into existing infrastructure and resources in a particular department/university, even if its general statements like "I will seek collaborations with the Institute for Protein Design..." or "with clinical faculty in cardiology who have established models of PEG cardiotoxicity." In fact, some search committee members might recommend you focus more generally rather than listing specific faculty names. Logistically, focusing on more general collaborator statements facilitates submitting applications so you don't have to change them for each application.

Formatting

Typically a committee is reading a lot of documents (over 200 applications – we had 350+ applications in our 2019-2021 searches), with each application being many pages in length.
- Keep your formatting clean and clear
- Make sure figures and text are all legible throughout the entire document.
- Have figures. Five pages of text is less approachable and harder to digest.
- Figures should have a clear purpose and connection to the text.
- Don't overdo it on stylizing text (i.e. be critical about use of bold, underline, italics, font color, capitalizing, etc).

- Think carefully about spacing – if everything is crammed together to make more text "fit" it's less likely to get read because it will be a wall of text.

Diversity, Equity, Inclusion Statement

The content of this document is dependent on what is specified in the application. You could be asked or given the option to discuss your lived experiences, what DEI means to you, how you would further DEI in the department/university/field, etc. You may have the option in the application to address each of these however you want.

Example Content:
(1) What diversity, equity, inclusion (DEI) means to you
(2) Your experience with DEI best practices or DEI efforts you've been involved in and/OR your lived experience with DEI
(3) How you would further DEI in the department/field to which you are applying

Be intentional, be specific. Research the appropriate language from experts in those areas. You should treat this statement like you would treat a research statement with the same level of intention.

Diversity can mean many things to many people – think about this holistically. It's not just about women and underrepresented minorities, but it can be if that is most meaningful to you. It can also be about veterans, student parents, first generation, LGBTQ+, low income, non-native speakers, immigrants, disability, access, etc.

Give solutions; the number one thing applicants haven't done is provided solutions to improve or address diversity and inclusion in, for example, chemical engineering. Doing K-12 outreach by providing demos to these schools is pretty standard, and has been done for many years or is already an integral part of university or college efforts. Saying you are just going to mentor students from diverse backgrounds is not sufficient. First, most people would consider mentoring to be part of the job, so it's not actually proposing something you aren't expected to do. Second, mentoring can do harm if not done in a culturally informed and intentional way.

Research what is being done at the department/university you are applying to. Really want to make yourself stand out? Build on what a department is doing in the DEI space! If the department doesn't have any outward information about their DEI efforts (which maybe is a red flag to you), look at the college or the university and build from there.

Recommendation letters:

These are often requested for a down-selected set of candidates after the first triage round, but you should provide a list of your references in your initial application (end of CV, cover letter, direct entry into the application website, or as a separate document upload).

Expected letters: doctoral and postdoctoral advisers (if you've done a postdoc).

Other common letters: Key collaborators; teaching or outreach advisors; supervisor or collaborator on a leadership activity

Additional thoughts:
- Some schools required 5 letters, so for my purposes it was useful to include two medical doctors, both of whom I had collaborated extensively with over several years. If I didn't have the MDs and needed 5 letters, I would have used my close mentor from my undergraduate college, and one of my colleagues in the non-profit work I did, both of whom knew me well enough to speak to my ability to be a leader and good colleague, at the least.

- An applicant submitting rec letters from their rec letter writers is poor practice, and questionable ethics, at best. If rec letters are requested, rec letter writers will get an email sent directly to them for guidelines on how to submit a letter confidentially. Do not submit rec letters on behalf of your letter writers.

FAQ

- **My plan is to have a relatively general research and teaching statement, only briefly modifying both for each application and to include more department-specific information in the cover letter. Does this seem appropriate?** Yes, your most significant modifications will come on the teaching statement, where you often want to be as specific as possible in outlining what you will teach/are interested in teaching (listing course codes and course names doesn't hurt!).
  Your teaching philosophy and experience will likely stay consistent across applications. Unless you have a section in your research statement specific to each university not covered in your cover letter (about potential collaborators, infrastructure, institute culture etc) your research statement will likely stay pretty close to the same for all places you apply! You DEI statement may also vary depending on how you write it – many candidates may share their own experiences and activities that are independent of what department they end up in. However, we often see that stronger, differentiating statements will discuss what is actively being done at the university or department that they can contribute to or build on in the DEI space, in addition to discussing what they can do in their research/field.

- **Regarding the cover letter, my general plan is: 1) explain why I'm interested in and a good fit for the department I'm applying to - available resources, synergistic collaboration opportunities with existing faculty, etc, 2) briefly summarize my research and teaching vision, 3) provide basic information (e.g., earliest start date, AIChE poster session info). Do you think I am on the right track?** That sounds good to me – it's good to give a few key highlights of your past research successes, which can come into the "being a good fit" for the department portion of the cover letter. I think the main thing I've seen go wrong in cover letters is (1) not touching upon why that department/university, and (2) over-formatting - i.e. bolding or italicizing or underlining too much stuff – avoid doing that; if you bold/italicize, nothing ends up being emphasized.

- **What would you change from your application, having now served on a search committee?** I went out on the market in 2014 (applications mostly submitted by end of August 2014, interviews in Dec 2014-Mar 2015), and I would say that my docs are a bit out of date and I would certainly improve them if I were to apply again. I think my application could certainly have been better, although I ended up interviewing at 11 places (12 institutions in total). From serving on the faculty search committee in ChemE, here are a few things I would do in my research statement: (1) Keep my overview figure and my lab "branding" in my research statement to show my lab vision; (2) Be more specific about exactly what tools I would use in each project cluster - many people write specific aims or grant style research statements, which is ok, as long as you are making the big picture clear and your research proposal is understandable to a broad audience; search committees in ChemE may not review applications based on overlapping areas of expertise – you may have people from a range of research areas on the committee reviewing your application, especially if the search is an open search to all research areas

- **What is your advice on when to bring up possible career opportunities for one's academic partner?** This is a great question! It's a really personal decision so I'll note

that up front. I brought up my partner in my first-round interviews and I initiated that discussion in most of those interviews since it's illegal for anyone to ask about your personal life in terms of family situation. I made that decision because it felt most authentic to me and because my partner was a big factor in my decision - I wanted to make sure it was clear I wasn't making my decision independently. However, I have mentored and know of several faculty candidates who do not bring up family/partners/dependents/etc at all until the 2nd visit or even at the time of signing the offer letter, and that is totally fine too. What I will note is that it is rare to have it work against you – we see sensationalized stories about how people bringing up their partner or child, etc was used against them in some way, but in my 7 years of observing searches, chairing searching, observing hiring trends, following social media threads, and consulting with many about faculty hiring best practices, these cases are not common. What is more common is people bringing up the topic of family to learn more about you, whether you want to talk about it or not! My general advice is – be true and authentic to yourself and what feels right to you; if a school is actively recruiting you and you are interested in that school, bring up anything that is important in your decision making process because a chair can then be an ally/advocate for you to help make it the best offer for you as possible. I genuinely believe the healthiest departments who really have the best in mind for their faculty think about the whole person they are hiring, which can include partners, dependents, pets, children, etc.

- **The first few ChemE applications are appearing online and some say they may read applications as they come in, but they also have a priority deadline listed. I'm not sure what to make of this. Do you think that I should be submitting my materials early if I can in these cases, or does it not matter?** My general response would be to submit by the priority deadline but make sure you are ready and confident you have the best application possible (which you will have, so don't overthink it!). Technically applications don't close until the position is filled (usually April – June the next year), but I don't know of many hiring committees that equally consider or spend time with applications submitted after the priority deadline. Many committees wait until the priority deadline to start reviewing applications since it's often administratively easier to do that and easier for faculty to review in groups and is more equitable than reviewing as things roll in; however, some committees review as things come in so they can get a jump on top candidates and reach out to them early to connect pre-AIChE or even with pre-screening phone calls in October. At UW, we do not start our reviews until after the priority deadline as passed - we do pay attention to who is submitting and the quality of applications as they come in.
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