Purdue Faculty Advancement, Success, and Tenure (FAST)

“Things I Wish I Knew When I Started”

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*1.       Introduce yourself – include your academic area, how long you have been at Purdue, your previous institutions, and anything personal that you would like to share (i.e. married/or not, children/or not, hobbies and/or interests outside work, etc.)*

I’m a second-year assistant professor in ECE. I came here after a decade at MIT, serving as a graduate student, postdoc, and research scientist. My research is in the area of renewable energy and nanophotonics, specifically photovoltaics and thermophovoltaics (i.e., converting heat into electricity). My wife and I are fortunate that we both received attractive offers from Purdue at the same time, and both work primarily out of Discovery Park. In our free time, we enjoy athletics, including running, biking, tennis, and swimming; domestic and international travel; and trying exotic new cuisines.

*2.       What has been your experience with mentoring at Purdue?  Include both mentoring where you have been the mentor and in which you have been the mentee.  Does your College/School or Department have a formal mentoring program?  How has FAST contributed to your success?*

I’ve been fortunate to have two superb mentors within Purdue ECE, Mark Lundstrom and Andy Weiner. They often take the initiative to mentor new faculty in each of their areas. Since I’m affiliated with both areas, they’ve both helped me out. If you don’t have a mentor, then choose carefully. Try to find someone who not only has a natural rapport and interest in you, but also is well-respected by his or her peers. In order to broaden my horizons, I’ve also taken the initiative to ask any and all other faculty members questions as they come up, especially if they’re particularly knowledgeable about my area of interest. To be honest, I don’t think the official/unofficial nature of the interaction is nearly as important as whether you share common interests and way of thinking, and both have the time and energy to interact in a productive fashion.

As for mentoring others: I’ve found that you can be in high demand as a mentor as long as you’re reasonably attentive. No special expertise is required, but it can be helpful. When dealing with undergraduates or younger students, it may be useful to leverage your time and effort in group settings, and also to supplement your efforts with some from your graduate students (or even undergrads).

*3.       Knowing what you know now, what advice can you give to a new faculty member just starting out?  What do you know  now that you wish you had known when you first started at Purdue?*

Being a faculty member is a tremendously challenging (and rewarding!) job. The most important thing is to be able to learn the right skills to be a better professor. There are a few books out there that may help. For example, Robert Boice’s books, “Advice for New Faculty Members,” and “Professors as Writers,” and Lucas’ and Murray’s recent book, “New Faculty: A Practical Guide.”

<http://www.amazon.com/Advice-Faculty-Members-Robert-Boice/dp/0205281591/ref=sr_1_1?ie=UTF8&qid=1379422918&sr=8-1&keywords=boice+new+faculty>

<http://www.amazon.com/Professors-Writers-Self-Help-Productive-Writing/dp/091350713X/ref=pd_sim_b_1>

<http://www.amazon.com/New-Faculty-Practical-Academic-Beginners/dp/0230114865/ref=sr_1_1?s=books&ie=UTF8&qid=1379422960&sr=1-1&keywords=lucas+murray+new+faculty>

There are also workshops on teaching, including Richard Felder and Rebecca Brent’s, that will demonstrate the value and techniques associated with active learning. However, the most important guidance will come from your colleagues: not only mentors, but all faculty members here, who in virtually all cases have a great deal of knowledge and insight. But you should always think about whether their advice is right for you, of course.

Let me just go over a few things that came to mind for me. The first big thing was thinking about how I would be evaluated in the tenure review: on discovery, engagement, and learning. To understand what those terms mean here, and to allocate my time in rough proportion to the weights they are given.

In my first semester, I remember teaching was a challenge. Mainly I had to understand where the undergrads were coming from and how they think, which led me eventually to change my teaching style. I also realized that I didn't need to spend as much time preparing for each class as I did at first, if I was clever enough.

For research, it was really helpful to connect with some of the more senior faculty in my area, joining their group meetings and discussing research ideas. That in turn led to joint research papers and grant applications (and awards, thankfully!). Publishing entire books is usually considered too time-consuming for junior faculty in engineering.

For engagement, I was a bit confused at first. But everything good that can go in your tenure case that doesn’t fall into discovery and learning could be considered engagement. This includes departmental service, outreach to the community in your professional capacity, and more. While engagement is certainly a good thing, it’s probably best to make sure that you are disciplined about allocating time to it before you go up for tenure.

With all this in mind, not surprisingly, there's not really any point nowadays when I get all of my work done! But my goal is to use each day to make a measurable amount of progress forward. At the same time, achieving some degree of breadth in my life is important. Definitely pay close attention to your physical and emotional health, since this is quite a challenging job. Nonetheless, *you should expect success*, and act accordingly. Make use of your natural talents, knowledge, and the immense resources that Purdue, the federal government, and other allied organizations make available to both you and your students.