

From the moment I start working with a new student, I try to understand their goals are, and why they want a PhD. This helps me guide their research, and also mentor them toward their goals. For example, if a student is interested in an academic career, I will ensure that they learn to formulate fundamental research problems, develop a strong publication record, and attain some teaching experience. Similarly, for a student who wishes to work in industry, I will try to make sure that they attain relevant experience. I certainly make sure to discuss their career goals, and progress toward these goals, at least once per semester, in order to make necessary adjustments. In some cases this may mean helping a student obtain an internship in an industrial research lab, or helping a student connect with leaders in the research community. I also like to make sure that my students have excellent writing and presentation skills, and give them many opportunities to present in group meetings, and international conferences.

My research group consists of eight graduate students and one postdoc. In order to make sure that my students get the attention that they need, I meet individually with each of my students at least once per week, and also hold weekly group meetings. These weekly meetings are mainly focused on research, but I always make sure to leave time at the end to talk about anything else that is on their mind, such as concerns about their career plans, coursework, etc. I have noticed over the years that most of my students are very good friends, and are very supportive of one another. However, I don't attribute this to anything that I do in particular. I try to make sure that my students do not compete with one another, by making sure that they each work on their own problem, so that there is little opportunity for "unhealthy" competition between my students. We also hold regular social activities, such as group lunches, dinners, etc.

In my research group, the biggest challenge is in formulating a good research problem. This process often takes one to two years and sometimes longer, and is inevitably frustrating, and agonizing for students. Our research tends focus on fundamentals, and requires students to identify a problem, develop a simple abstract model, and obtain insightful solutions. Identifying and formulating the problem, is by far, the biggest challenge. There is no recipe for success and students need to be patient and keep on trying. Somehow, it always seems to work in the end. In our weekly meetings, I continuously offer my students encouragement and point out new directions that may prove promising. Moreover, our students receive encouragement and support from more senior students who inevitably have gone through similar experiences. Our primary deliverable is papers. We aim to publish our work regularly at premier conferences in the field, such as IEEE Infocom, ACM MobiHoc or IEEE International Symposium on Information Theory. These conference publications are typically followed by an extended submission to a top-tier journal, such as IEEE/ACM Transactions on Networking, or IEEE Transactions on Information Theory.