

LEADERSHIP AND SOCIAL INTERACTIONS

Graduate school is ultimately preparation for the working world. It's important to develop contacts and networks beyond your advisor and research team and to seek out opportunities beyond your own research project.

The College of Engineering and the University offer workshops, services, talks, and courses directed especially at graduate students.

The Center for Teaching Effectiveness sponsors a program for teaching assistants leading to a certificate. The graduate Women in Engineering (www.engr.udel.edu/wie) sponsors programs that are open to all graduate students, including a panel on jobs and careers, a workshop on visas, panels on balancing career and family, and coffee breaks for networking. In addition, there are courses on research writing, ethics, entrepreneurship, and other topics of interest to grad students. And, of course, there are active student groups, for example, Engineers without Borders.

The University's grad office convenes a "graduate senate," which sponsors networking events and posts a listing of community events (www.udel.edu/gradoffice/gradsenate/).

Do take advantage of these opportunities and volunteer for leadership positions to develop your social networks, help you balance your life, and position you for future employment.

PROBLEM SOLVING

- Don't expect everything to work right the first time. Part of the research process is learning not only what works but also what fails.
- Organize your time so that you balance your life as a graduate student and your personal life.
- Don't panic if you encounter a major surprise such as learning that your funding has not been renewed or your advisor is leaving the University. Be prepared with other options and familiarize yourself with available resources.
- Get help when you need it to solve conflicts within your research group or address personal problems.
- Don't take failure personally and don't retreat into yourself when you have a problem. Talk to others about your frustrations – most students, postdocs, and faculty have been through similar experiences.

RESOURCES FOR GRAD STUDENTS

The University has a vast array of resources for students, ranging from academic support programs to health and fitness facilities to safety services. A primary resource is the Office of Graduate Studies in 234 Hullihen Hall (<http://www.udel.edu/gradoffice>). Visit the College of Engineering web site (http://www.engr.udel.edu/resources/current_students/grad.html) for a complete list of fitness and recreational facilities, parking information, health services, library resources, public safety services, dining facilities, campus news media, bookstores, and computing facilities.



HANDBOOK FOR GRADUATE STUDENTS IN ENGINEERING

WWW.ENGR.UDEL.EDU

TRADITION OF EXCELLENCE



Welcome to the graduate program in the University of Delaware College of Engineering. This brochure is designed to help you make the transition from undergraduate studies to grad school by providing information about how to select a research group and an advisor, choose coursework, obtain funding, and solve problems.

The most significant difference between graduate work and undergraduate studies is the level of independence required. In addition, the material covered in graduate classes is deeper and more challenging than in undergraduate classes. Your time will be less structured than it was when you were an undergraduate; don't expect to get the summer off, as that is when a great deal of research gets done. Communication skills and reasoning are more critical in graduate school—when you discuss your original research, you will have to communicate clearly and “sell” your results.

CHOOSING YOUR RESEARCH GROUP

Each department has its own procedures, but, in general, availability of funding and compatibility of research interests must be jointly considered by a faculty member and a prospective student in their decision to work together. Explore the areas of research expertise offered by the faculty in your department, so that you have the knowledge

to make a good match. In addition, each research group has a different culture, so talk with students in the group and visit the labs to gain additional information that will help you identify a good fit.

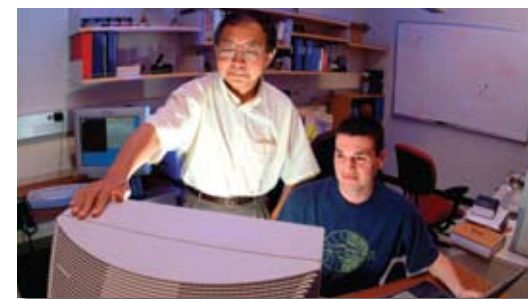
COURSEWORK AND QUALIFIERS

As a graduate student, you'll be expected to apply the material taught in the classroom to your specific research topic, so it's critical that you work with your advisor to select courses that are closely related to your research area. Each department has its own rules about coursework and qualifying examinations and may have different tracks for getting an MS or a PhD degree. Read the requirements carefully and discuss them with your advisor or a designated faculty member in the department.



FUNDING

Funding for graduate students in engineering may come from a variety of sources, including fellowships, scholarships, teaching assistantships, and research assistantships. For specific information about funding opportunities, talk with your advisor or someone in the department. If you plan to pursue a career in academia, take advantage of the opportunity to work as a teaching assistant (TA). Some good resources for TAs can be found at the English Language Institute and the Center for Teaching Effectiveness.



ESTABLISHING A RELATIONSHIP WITH YOUR ADVISOR

A good relationship with your advisor is vital to your success as a graduate student. Your advisor is a source of funding and a recognized national expert in his or her field of research. He or she also knows other experts in your research area and thus will be an excellent resource for helping you find a job after graduation. This is your work and your future, so take the initiative, ask questions, and follow this advice to establish and maintain a good relationship with your advisor:

- Discuss requirements for coursework and qualifiers with your advisor to be sure you're on the right track academically. Requirements vary from one department to another, and they are different for MS and PhD degrees.
- Learn the culture and know what is expected of you in terms of meetings with your advisor, lab responsibilities, and other issues.
- Establish clear objectives with your advisor in terms of both short- and long-term goals, including the production of publishable results from your research.
- Keep your advisor apprised of your progress and be prepared to show results.
- Come prepared to meetings with your advisor and take notes during the meeting.