The Role of the Advisor

(Excerpt from "Graduate School in Science and Engineering: Tips for Students and Faculty")

The mentor/advisor is one of the most important persons in a graduate student's life. "Why do you need a mentor? You can't graduate without one. That's the bottom line." The advisor will guide your research, provide funds for your materials and equipment, provide (or not provide) your financial support and, generally, will have a great deal of influence on the success of your graduate studies. Selecting a mentor/advisor should not be a "snap" decision...do some research before committing yourself to a laboratory group.

What should your advisor expect from you?

Following this section is a list detailing a number of things you will want your advisor to do for you. However, the relationship between a graduate student and his/her advisor must be mutually beneficial in order to work well. The term "graduate studies" is inaccurate...we should use the term "graduate work." You should consider graduate work your job for the next few years...and you should do your best to prove that it is a job that you can do well! With that in mind, we have developed a list of tips for working with your mentor/advisor:

Let your advisor know that you are serious about completing the degree...**Don't Assume That This Is A Given!** Your advisor may have had students before who really were not dedicated to completing the degree;

Discuss with your advisor what you hope to do with your degree, such as conduct research in a university setting, work in industry, or be a full-time teaching professor;

Be Visible!

Attend seminars sponsored by your department;

Work! Graduate school is the time for working long hours...you don't have to live in the lab, but be sure you're getting the work done, even if it means staying late;

Think of your graduate work as a job. Your advisor is putting time (and money, if you're a graduate student researcher) into training you. Show up at work every day and on many weekends. You don't have to give up your social life but this is not the time to go on road trips every weekend!

Early in your graduate work, begin to build your advisor's trust in you...listen to his/her advice. Sometimes accepting this advice can be painful but, unless you feel it is unethical, malicious, or really off target, take it! If you feel the advice is not in your best interest, confer with another faculty member on your advisory committee.

Confer often with your advisor. It is recommended that, once you start working on your dissertation, two weeks should not pass without conferring with your advisor;

Get to know other graduate students (both new and experienced) and other faculty members in your department. Talk with them frequently at lunch or before/after seminars. Learn how to collaborate...the old saying about friendship holds true - before you can have colleagues, you have to be one.

In general, put your mentor at ease. Let him/her know that you're serious, that you're motivated, and that you're eager to earn a place in both his/her lab and in the national network of researchers in your field.

In General, A "Good" Advisor Should:

Be involved in a research area that you are interested in. DO NOT choose a particular mentor/advisor just because they are "nice!" You must be interested in doing serious work over a long period of time in his/her research area...you should not expect him/her to support you in a new research field. Conversely, if you can tell that the faculty member absolutely rubs you the wrong way and that your personalities will clash, you may wish to reconsider your selection or at least have a discussion with several of his/her graduate students;

Counsel you and direct your research - your mentor should be candid about your progress and should feel free to tell you not only when you're doing things right but also when you're wrong;

Direct your course selection and course load - a good mentor won't let you get in over your head or take a worthless course;

Steer you away from people in the department who will create barriers for you (in courses, collaborative work or sharing equipment, for example);

Offer encouragement;

Assist you in understanding and meeting the milestones and deadlines you have to meet (for example, course work, preliminary exams, proposal preparation, and dissertation);

Give you some research freedom...after working in the laboratory for a while, you should have the opportunity to propose experiments...you should not spend your entire graduate work acting as a laboratory technician to carry out someone else's work;

Provide opportunities for you to participate in annual meetings of professional associations, including opportunities to prepare and staff a posters;

Assist you in learning to prepare research papers for submission to professional journals;

Introduce you to colleagues from other institutions, both when they visit your campus and when you attend annual meetings of research associations;

Make every effort to support his/her graduate students financially;

Establish and encourage absolute intellectual honesty in the laboratory group. You should ask other graduate students whether laboratory discussions are open and free.

Make efforts to establish a "cooperative" laboratory group where:

> a network of cooperative interaction exists within the lab group...this should include postdoctoral fellows, both new and experienced graduate students, technicians;
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> the mentor encourages students and postdoctoral fellows to continue exploring problems begun in his/her laboratory when they move to a new position;

Make sure that arguments about the interpretation of data or development of theories are kept separate from personal barbs or attacks;

Work to make his/her laboratory a part of the informal national network of laboratories in his/her field...for example, does he/she collaborate with other persons around the country?...does he/she act as a reviewer for grants and research journals?

Expose students to the funding process, including opportunities to draft sections of grant proposals, read grant proposals, and discuss how-to's on working with funders;

View science as fun, challenging and exciting work, but also as a very human endeavor.