School of Life Sciences: Campaign for Ethics and Mentoring

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In the fall of 2008, SoLS grad students conducted a comprehensive survey for the Septennial Review. Feedback was requested on mentoring relationships and ethics. In total, 89 respondents answered some or all of our survey.

Anecdotal stories indicated wide variation in the quality of mentoring. Survey results supported this idea. This survey asked grads which aspects of mentoring were most important to them, how satisfied they were with their advisors, and what they liked most and least about their advisors. Most grads were satisfied with mentoring quality overall (~80% of grads were satisfied with their mentoring relationship and the training provided by their mentors). However, fewer than 50% of grads gave their mentors top marks (very satisfied or strongly agree) in some areas, and 5-30% were dissatisfied to some extent in some areas. Approximately 20% of students were dissatisfied overall with the research-related mentoring they received.

Students thought it was most important that their mentors provide feedback on research, be available and responsive, and communicate expectations clearly. In these same areas, 25%, 26%, and 32% of students were dissatisfied, respectively, and only 46%, 41%, and 35% gave their advisors top marks.

Free responses indicate that some students are thrilled with their mentors. Common positive attributes mentioned include knowledge, humor, friendliness and encouragement, and good communication and writing skills. Students commonly wished their advisors would work with them or teach them more, that they better understood the student's research, and that they had more reasonable and clearly stated expectations. Some of the comments pointed towards fairly serious problems in some labs.

To work towards better mentoring relationships and to try to improve all relationships in SoLS, we have developed several documents.

- 1. A SoLS statement of ethical principles for all members of SoLS
- 2. A mentoring mission statement
- 3. A mentoring agreement ideally to become an unfiled component of the annual review process for grads (including first year students)
- 4. Online supplementary documents A list of minimum and maximum expectations for grads and faculty in a mentoring relationship AND a list of tips, or best practices for grads and faculty in a mentoring relationship

School of Life Sciences Statement of Ethical Principles

"What do we have for judgment, worth, and honor but the integrity of our ideas—using integrity both in the moral meaning of honest in argument and, even more importantly, in the literal sense of uniting our various notions into coherent intellectual structures?" -Stephen Jay Gould, Eight Little Piggies

Ethical conduct in a scientific community not only upholds the values of general society, but also results in stronger research, education, and outreach (Resnick 1998). Accordingly, the students, staff, and faculty of the School of Life Sciences at Arizona State University are expected to uphold the following ethical principles:

Integrity

We are honest, conscientious, and fair in our work and in our relations with others.

Communication

We are open, honest, and forthright in expressing our knowledge, opinions, ideas, and intentions.

Accountability

We accept responsibility for our actions.

Respect

We treat all people with respect and dignity.

Excellence

We make every effort to attain the highest standards of quality in our professional pursuits.

Resnick, D. B. 1998. The ethics of science: an introduction. Routledge: New York.

Mentoring Mission Statement

"A mentor in a graduate school is more than an advisor. In part this is because, more than undergraduate education, graduate education is concerned with creating, not just transmitting, knowledge. Because knowledge grows so rapidly, graduate education tends to focus less on what is known than on methods, on means of creating new knowledge." –Morris Zelditch, Jr. "Mentor roles in graduate study," in *Mentoring and Diversity in Higher Education* (ed. Frierson)

Mentoring should be a mutually beneficial relationship. The mentor shall act as a role model and source of information and advice on research, teaching strategies, and professional development for the mentee. The mentee shall facilitate mentor creativity and enable the mentor to refine their methodologies and philosophies while keeping abreast of new developments in the field.

Mentoring requires a commitment of time from both parties. Though this time may vary for each relationship, or through time, it is supremely important to match yourself with an appropriate mentee or mentor in terms of both research interests and personality if you want the most from this investment of time.

The mentoring relationship should be properly balanced, with the mentor supporting the mentee without leading them. If the mentee is seeking out advice too often, it could indicate that the mentee is using the mentor as a crutch. If the mentee and mentor are not meeting often enough, it may affect the mentee's productivity. It is the responsibility of both parties to identify these problems and avoid dependency or the end of the mentoring relationship by modifying the terms of the relationship.

The mentor should never take unfair advantage of their position and recruit the mentee to do work which is their sole responsibility unless it relates to the mentee's project or may provide a mutual benefit.

Goals for the mentee should be discussed by both parties to ensure that they are specific and realistic, yet challenging enough to stretch the mentee's abilities and knowledge. Both parties should be confident that the mentor will be able to assist the mentee reach these goals. If at any time the relationship does not seem adequate or helpful, either party has the right to end it.

While it is important to the efficiency of the mentee's graduate career to have a primary advisor/mentor, if they have needs (especially related to expertise or diversity issues) that are not being met by their primary mentor, both parties must realize it is acceptable and even encouraged for the mentee to seek out additional advisement from another faculty member or from someone outside of this university.

Mentors should encourage mentees to develop their teaching skills, outreach activities, and other broader impacts as a fundamental part of their graduate education. Mentees should recognize this importance. Mentors and mentees should work together to achieve an appropriate balance of research, education, teaching, and outreach activities. All are important components of a graduate education.

SoLS Mentoring Agreement

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I,agreement and supple	, and my mentor/m mental materials. Tog	ether, we have disc	, have read the mentoring ussed and agreed upon the following.
scheduling of these m 2. The mentor will als 3. We will both typica are too busy and need 4. The mentor agrees	teetings. Both parties at o be available for discully respond withinl more time for a full reto provide feedback to	agree to come prepussion at these time day(s) to return esponse. A remind of the mentee on the	s responsible for initiating the pared and will focus on the meeting. es:
6. Our joint goals for a. Research:	the mentee's first year	are:	
b. Academic progre	ess:		
c. Outreach/teachi	ng:		
8. If either of us feels the other.	se agreements as neede these agreements are a and keep a copy for t	not being honored,	at least annually. we will communicate our concerns to
Mentor	Date	Mentee	Date

Mentor-Student Expectations

Minimum and maximum expectations

A graduate student is expected to...

Take classes as directed by committee

Develop and conduct their own research

Participate in lab-related research, meetings, and other lab activities

Treat their faculty mentor and fellow students with respect

Make efforts to communicate regularly with faculty mentor, committee, and fellow students

A graduate student should never be expected to...

Do personal favors for their faculty mentor or committee member
Falsify documents or lie about authorship
Use research funds that they acquire themselves for unrelated faculty uses
Spend most of their time working on projects that do not contribute toward their degree
Be solely responsible for communicating with the faculty mentor

A faculty mentor is expected to...

Treat his/her students with respect
Make efforts to communicate with students regularly
Make efforts to teach the student about research methods and associated pursuits
Make efforts to ensure the safety of all those doing research
Make efforts to help fund the student's research
Review and return student documents in a timely fashion, within reason
Be open and honest about availability and future plans
Organize lab activities that promote communication and learning

A faculty mentor should never be expected to...

Falsify documents or lie for the benefit of the student Provide all funding for the students research Be available 24/7 Conduct the student's research for him/her

Tips for Mentors and Mentees

Tips for mentors:

Be open, honest, and positive.

Be critical in a supportive way. Avoid judgmental comments.

Give feedback in a timely manner.

Have realistic expectations. Realize where the mentee is coming from (experience, etc.) and be patient.

During meetings, devote your full and undivided attention.

If you can't remember what the mentee's recent progress has been, keep a journal.

Tell your mentee how they can be more helpful or ask for their help on projects.

Your mentee is not necessarily your employee. Don't take unfair advantage of their time.

Be willing to consider alternative methods or ways of thinking.

Disagree without being disagreeable.

Trust that your mentee is working hard.

Confront your mentee if you do not think they are serious about their work.

Tell your mentee if things aren't working (or if there is a better way to do something.)

Honor commitments and promises—do what you say you will do.

Offer help if your mentee is having a hard time.

Communicate clearly. Be specific.

Help mentees figure things out for themselves.

Be available as often as possible, whether in person or simply by email.

Let your mentee pursue things of interest to them.

Remember that an effective mentor is sensitive to the mentee's needs.

Understand a high level of commitment is required to be a good mentor.

Tips for mentees:

Be open, honest, and positive.

Seek out feedback. Accept critiques.

Keep an up-to-date journal of your mentor's suggestions/input.

Don't look to your mentor for all the answers. Try to figure things out for yourself.

Be responsible for your learning.

Take ownership of your project.

Tell your mentor if and how they can be more helpful.

Disagree without being disagreeable.

Trust that your mentor is invested in you.

Set goals and actively work toward accomplishing them.

Honor commitments and promises—do what you say you will do.

Offer your mentor help with projects when you have the time.

Communicate clearly. Be specific.

Be patient—understand that your mentor may be very busy.

Be appreciative. Your mentor is there by their own accord.

Realize you are ultimately responsible for your actions, even if your mentor suggested them.