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MENTORING TIPS

1. Set expectations: Support, yet challenge, your mentees

Mentors, co-mentors, and students come to the undergraduate research experience with their respective sets of expectations about each other and about the project on which they will collaborate over the summer. Mentors have the responsibility to manage student expectations and to communicate their own expectations about how they will interact with the student. Mentors should define the roles and relationships within the research group for the student. Finally, mentors should evaluate their mentee's level of knowledge, skill, and ability and find ways to educate, stimulate, and challenge the mentee through the research project.

2. Be a positive role model

Good mentors are respected by their mentees. A mentee can learn a lot from their mentor simply by watching how their mentor behaves in any particular situation. Good mentors will also look out for experiences, or even create situations in which their mentees can become involved to learn new things.

3. Be genuinely interested in your mentee as an individual

A mentoring relationship is a very personal one, which is often important to the mentee. As a mentor, get to know your student's academic, research, professional, and personal goals, so you can help them in a way that meets their personal best interest. Additionally, mentors must keep in mind that they are interacting with the whole student. Students come to their research projects with all their other experiences and relationships. If a student is not performing well, seems disengaged from the project, or appears to have other things on his/her mind, the mentor may inquire whether things are going OK. Some students will respond to the invitation to talk, others will not. If a mentor is concerned, he/she should contact the Student-Faculty Programs Office or the Counseling Center at Caltech (626.395.8331).

4. Share your experiences and insights

Sometimes your role as a mentor can make you seem intimidating to an undergraduate student, thus discouraging mentees from speaking frankly about their problems or asking questions that they fear will seem silly. Mentors can humanize themselves through sharing stories about their own academic and professional journey. Mentors should choose stories that they feel are appropriate and helpful, but do so in a neutral way, without attachment to how your mentee will use this learning. Be open to sharing your mistakes and failures too, as these are often where our biggest lessons are learned. It will also help your mentee be aware that challenges will arise, and the way you dealt with the situation might also help them gain insight about how to build resilience.

5. Ask questions

Asking your mentee open-ended questions will help you as a mentor to identify their real needs, values, and passions. It is also a great way to encourage your mentee to think through situations themselves and draw out the consequences of the various choices or courses of action they can take.

6. Act as a sounding board

Mentees benefit greatly from the opportunity of having a good mentor listen to them. Allow them to explore their thoughts, ideas, and curiosities openly with you. This will often help them unravel their thinking, gain insights about a situation as they share their concerns with you, and develop problem-solving skills.

7. Provide helpful feedback

Not all feedback is helpful. A good mentor knows this and will deliver feedback in a way that will help their mentee gain insight to further develop specific qualities or skills.

8. Acknowledge achievements

Highlight for your mentee any achievements they might have forgotten, to help build their confidence in their capabilities as a researcher. Remember to celebrate their successes along their research journey.

9. Foster community

Establish a sense of community by creating an environment that welcomes inquiry, questions, and open communication among mentees, graduate students, TAs, and other faculty within the research lab. Additionally, create opportunities for your mentee to interact with other members of the research lab outside of the lab environment. This provides an opportunity for your mentee to interact with other members of the lab in a relaxed environment outside of the formal work setting.

10. Make regular appearances

Accessibility is a key component in promoting open communication and trust with your mentee. Many students will hesitate to contact their mentor until they have something big to report or a serious issue arises. Making regular appearances, whether it be through weekly lab meetings, an unsolicited email, or a Skype session, provides your mentee reassurance that you are present if they have questions, concerns, or simply want to share an idea they came up with while conducting their research.

Additional Resources:

Advisor, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering, National Academy Press, 1997.

How to Mentor Undergraduate Researchers. Ed. by Louise Temple, Thomas Q. Sibley, and Amy J. Orr. 2010.

Five Effective Strategies for Mentoring Undergraduates: Students' Perspectives. Mario Pita, Christopher Ramirez, Nathanaelle Joacin, Sarah Prentice, and Christy Clarke. *CUR Quarterly*. Spring 2013, Volume 33, Issue 3.