

College of Engineering Mentoring Expectations Template:

Note for Faculty: This document is meant to serve as a template for you to use with graduate students and postdocs. Feel free to eliminate any content that is not relevant to your mentees or reword it. If you choose to use this or another written document to communicate expectations, please consider providing updated expectations as your mentees progress (e.g., each year or stage of progress) and any expectations specific to the funding source). Remove these highlighted sections before disseminating to your mentees.

Note for graduate students and postdocs: While we are encouraging all CoE mentors to provide you with some type of written expectations, some of them may choose to communicate expectations verbally. It is possible that the expectations communicated by your advisor will not include everything listed here. Furthermore, this list is not exhaustive. We encourage you to ask about the topics important for you to know if they are not covered by your mentor.

The broad goals of my research program:

As part of my job as a professor, I am expected to write grants and initiate research that will make tangible contributions to science, the academic community, and to society. You will help me carry out this research. It is imperative that we carry out good scientific methods and conduct ourselves in an ethical way. We must always keep in mind that the ultimate goal of our research is publication in scientific journals. Dissemination of the knowledge we gain is critical to the advancement of our field. I also value outreach and informal science education, both in the classroom and while engaging with the public. I expect you to participate in this component of our lab mission while you are part of the lab group.

What I expect from you:

- Another part of my job as a professor is to train and advise students. I must contribute to your professional development and progress in your degree. I will help you set goals and hopefully achieve them. However, I cannot do the work for you. In general, I expect you to:
 - Learn how to plan, design, and conduct high quality scientific research
 - Learn how to present and document your scientific findings
 - Be honest, ethical, and enthusiastic
 - Be engaged within the research group and at least X program(s) on campus
 - Treat lab funds and equipment with respect
 - Treat your lab mates and our collaborators in an equitable, fair, and respectful manner
 - Take advantage of professional development opportunities

- Obtain your degree
- Work hard – do not give up!

You will take ownership over your educational experience

- Acknowledge that you are responsible for the successful completion of your degree. This includes commitment to your work in classrooms and the laboratory. You should maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards.
- Ensure that you meet regularly with me and provide me with updates on the progress and results of your activities and experiments. Make sure you also use this time to communicate new ideas about your work and challenges. Remember: I cannot address or advise about issues that you do not bring to my attention.
- Be knowledgeable of the policies, deadlines, and requirements of the graduate program, graduate school, and university. Comply with all institutional policies, including academic program milestones, laboratory practices, and rules related to chemical safety, biosafety, and fieldwork.
- Actively cultivate your professional development. The College of Engineering Office of Graduate Education (OGE) and the university have numerous resources in place to support professional development for graduate students and postdoctoral scholars. I expect you to take full advantage of these resources, since part of becoming a successful engineer or scientist involves more than just doing academic research. You are expected to make continued progress in your development toward your career goals, as an ambassador to the public representing the University and your discipline, with respect to your networking skills, and as an engaged member of broader professional organizations. The OGE has a workshop series on professional development and wellness. Attendance at conferences and workshops will also provide professional development opportunities. When you attend a conference, I expect you to seek out these opportunities to make the most of your attendance. You should become a member of one or more professional societies such as XXX, XXX, or XXX.

You will be a team player

- Attend and actively participate in all group meetings and seminars as part of your educational program. Participation in group meetings does not mean only presenting your own work but providing support to others in the lab through shared insight. You should refrain from using your computer or phone during research meetings. Even if you are using the device to augment the discussion, it

is disrespectful to the larger group to have your attention distracted by the device. Do your part to create a climate of engagement and mutual respect.

- Strive to be the very best lab citizen. Take part in shared laboratory responsibilities and use laboratory resources carefully and frugally. Maintain a safe and clean laboratory space where data and research participant confidentiality are protected. Be respectful, tolerant of, and work collegially with all laboratory colleagues: respect individual differences in values, personalities, work styles, and theoretical perspectives.
- Be a good collaborator. Engage in collaboration within and beyond our lab group. Collaborations are more than just publishing papers together. They demand effective and frequent communication, mutual respect, trust, and shared goals. Effective collaboration is a key component of our lab's mission.
- Leave no trace. As part of our collaborations with other labs and other research groups, you may be using equipment that does not belong to our lab. I ask that you respect this equipment and treat it even more carefully than our own equipment. Always leave or return it in the same condition you found it. If something breaks, tell me right away so that we can arrange to fix or replace it. Do not panic over broken equipment. Mistakes happen. But it is not acceptable to return something broken or damaged without taking the steps necessary to fix it.
- Acknowledge the efforts of collaborators.

You will develop strong research skills

- Take advantage of your opportunity to work at a world-class university by developing and refining stellar research skills. I expect that you will learn how to plan, design, and conduct high quality scientific research.
- Challenge yourself by presenting your work at meetings and seminars as early as you can and by preparing scientific articles that effectively present your work to others in the field. The 'currency' in science is publishing papers; they drive a lot of what we do and because our lab is supported by taxpayer dollars, we have an obligation to complete and disseminate our findings. I will push you to publish your research as you move through your training program, not only at the end. Students pursuing a master's degree will be expected to author or make major contributions to at least X journal paper submission. Students pursuing a doctoral degree will be expected to be lead author on at least XX journal papers submissions, preferably three or four.
- Keep up with the literature so that you can have a hand in guiding your own research. Block at least one hour per week to peruse current tables of contents for journals or do literature searches. Participate in journal clubs. Better yet, organize one!

- Maintain detailed, organized, and accurate laboratory records. Be aware that your notes, records, and all tangible research data are my property as the principal investigator. When you leave the lab, I encourage you to make copies of your data with you. But one full set of all data must stay in the lab, with appropriate and accessible documentation. Regularly backup your computer data.
- Be responsive to advice and constructive criticism. The feedback you get from me, your colleagues, your committee members, and your course instructors is intended to improve your scientific work.

You will work to meet deadlines.

- Strive to meet deadlines: this is the only way to manage your progress. Deadlines can be managed in several ways, but I expect you to work your best to maintain these goals. We will establish mutually agreed upon deadlines for each phase of your work during one-on-one meetings at the beginning of each term. For graduate students, there is to be a balance between time spent in class and time spent on research and teaching. If you meet expectations, you can set up your own schedule. It is your responsibility to talk with me if you are having difficulty completing your work and I will consider your progress unsatisfactory if I need to follow-up with you about completion of your lab or coursework.
- Be mindful of the constraints on my time. When we set a deadline, I will block off time to read and respond to your work. If I do not receive your materials, I will move your project to the end of my queue. Allow at least one week prior to submission deadlines for me to read and respond to short materials such as conference abstracts and three weeks to work on manuscripts or grant proposals. Please do not assume I can read materials within a day or two, especially when I am traveling.

You will communicate clearly

- Remember that all of us are “new” at various points in our careers. If you feel uncertain, overwhelmed, or want additional support, please ask for it. I welcome these conversations and view them as necessary, not as a weakness.
- Take initiative to solve problems and find answers or solutions to research problems yourself through the literature, protocols, other lab mates, etc. If after doing so you remain stuck, come to me for guidance.
- Let me know the style of communication or schedule of meetings that you prefer. If there is something about my mentoring style that is proving difficult for you, please tell me so that you give me an opportunity to find an approach that works for you. No single style works for everyone; no one style is expected to work all the time. Do not cancel meetings with me if you feel that you have not made

adequate progress on your research; these might be the most critical times to meet with a mentor.

- Be prompt. Respond timely (insert specific time if necessary) to emails from anyone in our lab group and show up on time prepared for meetings. If you need time to gather information in response to an email, please acknowledge receipt of the message and indicate when you can provide the requested information.
- Discuss policies on work hours, sick leave, and vacation with me directly. Consult with me and notify fellow lab members in advance of any planned absences. Graduate students can expect to engage in research activities for a significant portion of the week to make sufficient progress toward your degree; post-docs and staff at least 40 hours per week. I expect that most lab members will not exceed (XX amount of time; insert amount of time here) of personal travel away from the lab in any given year. Travel plans should be discussed with and approved by me before any firm plans are made. I believe that work-life balance and vacation time are essential for creative thinking and good health and encourage you to take regular vacations. Note: Taking time off will involve pre-planning to ensure the necessary deadlines are met, or progress is met before departure or shortly after your return. This must be discussed and approved beforehand.
- Discuss policies on authorship and attendance at professional meetings with me before starting any projects to ensure we agree. I expect you to submit relevant research results in a timely manner. Barring unusual circumstances, it is my policy that students are first author on all work for which they took the lead on data collection and preparation of the initial draft of the manuscript.
- Help other students with their projects and mentor/train other students. This is a valuable experience! Undergraduates working in the lab should be encouraged to contribute to the writing of manuscripts. If you wish to add other individuals as authors to your papers, please discuss this with me early on and before discussing the situation with the potential co-authors.
- Convey your communication and learning style and how frequently you need to meet.
- Acknowledge your responsibility in discussing issues of work-life balance with me, especially when you feel unable to or are struggling to achieve a desirable balance. Seek appropriate help and support where needed.
- Acknowledge your primary role in maintaining healthy habits that promote your well-being and in communicating and disclosing (where comfortable) issues arising or accommodations required of me. You also acknowledge that the mentor is not tasked with or responsible for treating or supporting the mentee in a mental healthcare professional capacity, and that the mentee will seek appropriate professional support if needed.

What you should expect from me:

- I will provide you with feedback on your performance both informally and formally. An unsatisfactory grade of “U” will be provided for your 8999 courses if your research performance is not meeting expectations.
- I will work tirelessly for the good of the lab group; the success of every member of our group is my top priority, no matter their personal strengths and weaknesses, or career goals.
- I will be available for regular meetings and informal conversations. My busy schedule requires that we plan meetings to discuss your research and any professional or personal concerns you have. Although I will try to be available as much as possible for “drop in business,” keep in mind that I have other faculty obligations as well.
- I will help you navigate your graduate program of study. As stated above, you are responsible for keeping up with deadlines and being knowledgeable about requirements for your specific program. However, I am available to help interpret these requirements, select appropriate coursework, and select committee members.
- I will discuss data ownership and authorship policies regarding papers with you. These can create unnecessary conflict within the lab and among collaborators. It is important that we communicate openly and regularly with them. Do not hesitate to voice concerns when you have them.
- I will be your advocate. If you have a problem, see me. I will do my best to help you solve it.
- I am committed to mentoring you even after you leave my lab. I am committed to your education and training while you are in my lab, and to advising and guiding your career development – to the degree you wish – long after you leave. I will provide honest letters of evaluation for you when you request them.
- I will lead by example and facilitate your training in complementary skills needed to be a successful scientist, such as oral and written communication skills, grant writing, lab management, mentoring, and scientific professionalism.
- I will encourage you to attend scientific/professional meetings and will try to fund such activities. I will not be able to cover all requests, but you can expect to attend at least one major conference per year, when you have material to present. Please use conferences as an opportunity to further your education, and not as a vacation. If you register for a conference, I expect you to attend the scientific sessions and participate in conference activities during the time you are there.
- I will convey my mentoring and communication style and expectations for meeting cadence.

- I acknowledge my role in supporting your mental and physical health. I will keep conversations relating to the health confidential to the degree that institutional and legal policies allow and acknowledge I will communicate to you here confidentiality is not guaranteed. I will do my best to provide equitable accommodations to allow students to thrive in my group and seek institutional help when unable to do so.
- I commit to discussing my role in creating an environment that promotes a healthy work-life balance and mental wellbeing.
- I recognize that the imbalances of power in academia can lead to abuses of said power and threaten the physical and psychological safety of mentees. I will do my best to model behavior that promotes a safe and welcoming environment for all mentees.
- I will strive to provide timely feedback on your work, progress, and communications. (Note: This should align with the same expectation for the mentees)
- I will strive to be supportive, equitable, accessible, encouraging, and respectful. I will try my best to understand your unique situation, and mentor you accordingly. I am mindful that each student comes from a different background and has different professional goals. It will help if you keep me informed about your experiences and remember that graduate school is an apprenticeship with very high expectations. I view my role as fostering your professional confidence and encouraging your critical thinking, skepticism, and creativity. If my attempts to do this are not effective for you, I am open to talking with you about other ways to achieve these goals.

Yearly evaluation (Note: this may not be the way the review of students takes place. This as well as all other elements should be modified or removed accordingly.)

- Each year we will sit down to discuss progress and goals. At that time, you should remember to tell me if you are unhappy with any aspect of your experience as a graduate student here. Remember that I am your advocate, as well as your advisor. I will be able to help you with any problems you might have with other students, professors, or staff.
- Similarly, we should discuss any concerns about my role as your advisor. If you feel that you need more guidance, tell me. If you feel that I am interfering too much with your work, tell me. If you would like to meet with me more often, tell me. At the same time, I will tell you if I am satisfied with your progress, and if you are on track to graduate by your target date. It will be my responsibility to explain to you any deficiencies, so that you can take steps to fix them. This will be a

suitable time for us to take care of any issues before they become major problems.