

Beltran Lab Member Expectations ^{1,2}

Our goal is to develop a supportive and respectful community that fosters curiosity and exploration, produces high-quality original science, and launches productive and passionate independent scientists.

Members of the Beltran lab share an interest in animal behavior, ecology, and physiology as well as diversity, equity, and inclusion in STEM. We value lab members from diverse backgrounds with strong quantitative skills and a passion for science and critical thinking. Each lab member fills a unique role. We are highly interactive and learn from the expertise of one another.

Graduate and post-doctoral work is a mutual investment by the mentor and mentee in the process of learning/training and producing peer-reviewed science. Like most relationships, it requires hard work and good communication. The following is a list of guiding responsibilities and expectations.

1. Basic ingredients

- Mutual respect – As a mentee, your job is to produce high-quality science and develop into an independent researcher. As a mentor, my job is to foster successful research and learning outcomes for everyone in the lab and to mentor you as you pass through this stage in your career. We are all colleagues and should be conscientious about our responsibilities to another.
- Communication – Keeping me updated is very important. Let me know early if you have any concerns. In turn, I will do the same for you.
- Commitment – Graduate school is hard, no doubt about it. I expect you to do well in your classes and to push yourself hard to accomplish research goals on time. This does not mean I expect you to live an unbalanced life; taking personal time is rejuvenating and necessary.
- Collaboration – Working together toward a common goal can help you tackle ambitious, multidisciplinary projects that would not otherwise be possible. Please treat your lab members as your teammates.
- Enthusiasm – Research is rewarding and many parts of grad school are fun. Step back every once in a while and remember that we have the incredible privilege of studying what we choose. Make sure you enjoy it and share your passion and excitement with me, our lab, and the community!

2. General expectations

- Take care of yourself.
 - Ambition and hard work are part of our lab culture, but the key is to know your limits and find motivation from within. You become a better scientist by pushing out of your comfort zone, but if you push too hard you end up injured and stuck on the sidelines. Pursuing your ambitious research goals should not come at the cost of your mental or physical well-being.
 - Managing your motivation and work habits while integrating interests and commitments outside of work is a key self-leadership skill that will serve you well throughout your career, and now is a great time to build that skill. You will be more successful if you take care of yourself and give time to things outside work – including relationships – that matter to you.
 - If you are not feeling well, take the time off you need to seek out help and take care of yourself. If you are going to be out for more than a couple days or miss a lab meeting,

¹ This material has been adapted from Kathleen Kay, Danielle Dixson, Doug Schemske, and Jen Heemstra.

² Last updated 04/05/2021. This is a living document; please email roxanne@ucsc.edu with suggestions.

please give me a heads up so I know you are OK – no need to give details if you don't want to.

- I care about you and am here to support you – just let me know what I can do to help.
- Be a good lab citizen.
 - Participate *actively* in weekly lab meetings. Come prepared to contribute to discussions with ideas and questions. Lab meetings are a safe space for the free exchange of ideas, at any stage of a project and no matter how well versed you are in a topic – no grading, no judgment. But this is not the same as coming unprepared.
 - If you find that you are a dominant voice at lab meetings or events, make sure that others also have opportunities to speak.
 - Take on your fair share of responsibilities for maintaining common lab space and equipment. Sign out common-use field/lab equipment, take care of it, and return it. Maintain a clean and organized workspace.
 - Promptly report mistakes, problems, or broken equipment. They happen to everyone and we can then try to fix it together.
 - Pitch in to help labmates when they need it, whether it is hands-on fieldwork or providing constructive feedback on an idea or draft. They will do the same for you.
 - Share funding and training opportunities with your labmates.
 - Contribute positively to the social dynamic of the lab. Be present, be engaged, and suggest activities that will help us connect. Enthusiasm is contagious; so is apathy.
 - New labmates should consult with more experienced labmates for advice and help with navigating their way through graduate school, lab policies, and life in Santa Cruz. Senior students and postdocs should mentor newer students. Good communication among all lab members is essential.
 - Help recruit new lab members. This may mean meeting with a prospective lab member, taking them out for meals and outings, and/or corresponding with them electronically. Prospective lab members are much more likely to want to join a lab when they have an opportunity to fully engage with lab members, not just me.
 - Help new lab members find their feet by welcoming them into town, giving them tips and tricks for finding housing and getting settled, etc.
- Be engaged in the broader research community of UCSC.
 - Attend the EEB seminar every week.
 - Consider participating regularly in another weekly discussion group (e.g., Pop Bio). It is important to engage with diverse perspectives.
 - Consider attending another seminar (ENVS, Genomics Institute, STEM active learning, Ocean Sciences, NMFS) or forming a reading group on a particular topic. If the seminar/event is on main campus, consider recruiting others to join you and taking an EEB vehicle.
- Maintain regular communication with me.
 - Inform me of your research and course activities, particularly when (or preferably before) you find yourself overwhelmed. I want to help you, but I can't help solve problems I don't know about. Before asking questions or bringing forward a problem, please make the effort to research the topic or ask other members of the lab. This way we can use our time together to discuss various ideas or options.
 - Meet with me regularly. Please let me know if you would like to meet weekly, bi-weekly, or monthly for progress check-ins and we can schedule a recurring meeting. This can be anything from checking in about progress, to setting goals, to sharing cool figures, to getting help, to communicating that something is not working. Meeting agendas are a plus, but not required. When one or both of us are in the field or away, please send bi-weekly reports by email.

- Please come prepared to discuss/present your recent work and next steps. It might help you to create an agenda.
- Stop by my office informally to share a cool finding, report a problem, get a signature, etc. If my door is open, I'm happy to see you. If my door is partially or fully shut, I'm on a deadline, in a meeting, or just not there.
- Please copy me on all written communication with our research collaborators. Also, inform me right away of any event or action that has the potential to cause concern among our collaborators or people outside our research group.
- Use email as the primary form of communication with me. For simple back-and-forths you can expect a response within 2 business days. Please give me 5 business days for emails that require a longer reply or request a meeting, and 10 business days for a written task (e.g., abstract comments, manuscript drafts, letters of recommendation). I try not to check emails during nights and weekends. If you need to contact me in an emergency, text or call my cell at 619-820-7839. Please use this sparingly.
- Treat grad school as your full-time job.
 - Keep regular hours. You are free to set your hours, but I do expect you to be at the lab during more or less regular business hours so that you can help and be helped by lab mates, and interact with the EEB community.
 - How many hours? This will vary according to other activities and commitments and the fluctuating demands of your project. Hours dedicated to research may be as low as 15- 20 hours/week when taking classes and TAing to well over 40 hours/week when meeting deadlines or in the crunch of a field season or heavy lab work.
 - Your priorities may shift based on your funding source. For example, if you are funded through a fellowship, you may have some more flexibility than if you are funded under my research grant for a specific project.
 - It is common to have a side project within or outside the lab, but this should be communicated with me and should not detract from progress on your thesis.
 - There are many responsibilities and activities you can and should take part in, but you must **schedule regular time for research** so you continue to make progress. If you wait to do research until you have nothing else on your plate, you will never get to it (trust me!).
 - You are always welcome to reach out for advice about opportunities to pursue or prioritize with your precious time.
 - **Read and write, early and often.** Set aside your sharpest time of day for daily reading and/or writing. Aim for at least 60 min/day of reading and writing at every stage of your program. Consider joining CORE Writing Wednesdays or forming a peer support group with accountabilibuddies to help set and enforce weekly reading/writing goals.
 - You are entitled to take regular holidays, winter campus closure, and spring break each year. It is your responsibility to make sure any research needs are covered while you are away or to schedule your time away accordingly.
 - Anticipated time away for vacation, fieldwork, or conferences should be posted in advance on the lab Google Calendar.
- Use best practices for open, reproducible science.
 - Keep physical notebooks for all field and lab work. Pages should be dated. All notebooks, supplies, and equipment should stay in the lab (not be taken home). You can also record an overview of statistical analyses in your notebook. Notebooks should be photocopied, scanned, or photographed regularly.
 - **Your digital files must be backed up** to an external hard drive and to the cloud. The hard drive should be kept separately from your main computer. UCSC provides Google Drive space for this purpose. Ask if you need help setting this up.

- Please organize your files and folders in a way that makes sense to you and could be understood by others. I strongly recommend adopting a standard file naming scheme for versions. I use the name of the document, year, month, date, initials all separated by underscores (e.g., Beltran Lab Expectations 2021_04_05_RSB.docx). Consider using UCSC Library resources for data management best practices and organization.
- Throughout your research project, I expect access to all raw data (e.g., field or biologging data) with proper written descriptions (metadata). This can be accomplished by uploading data to the Google Drive account on the lab desktop computer. I will not share your unpublished data without your explicit permission.
- Open access deposition of data and metadata (e.g., Dryad) right before publication are the norm in this lab; please coordinate with me to talk about the appropriate level of data to include.
- All code should be annotated and archived in GitHub, Google Drive, or Dropbox.
- I will not be able to sign your thesis until all metadata, data, and code files have been provided to me. Exceptions must be agreed upon in writing by all invested parties.
- Work towards becoming an independent researcher.
 - Time management is vital. Set short- and long-term goals and outline plans for how to achieve them by breaking them down into daily and weekly tasks. Revisit your goals regularly. Be realistic about how many hours/week you can dedicate to your research (put blocks for it on your calendar, alongside all other commitments) and use this to schedule your time. Work hard to meet mutually agreed upon deadlines, even if they are informal. I strongly recommend creating an Individual Development Plan (<http://myidp.sciencecareers.org/>) and re-visiting it each year.
 - Read and stay current on the literature in your field by subscribing to listserves (e.g., MARMAM), journal table of contents, and Google Scholar alerts. Expect to be asked questions at your proposal exam and defense on general knowledge in your area, reaching back to seminal papers and books and forward to recent publications. Find a good way to store and track what you read (e.g., annotated bibliography, EndNote, Mendeley, Zotero, etc). Consider using UCSC Library resources for organizing PDFs and citations. Keep me informed of cool things you find!
 - Practice giving and receiving constructive criticism. Not everything you say or write is brilliant; the same goes for me and everyone else. So, be open to criticism, offer your opinions, begin developing your reasoning and argument skills. Don't be afraid to respectfully disagree with me, or let me know when I am wrong about something.
 - Start practicing the financial aspects of being a PI. Seek out small grants to support your data collection and attendance at meetings and workshops. Maintain an informal log of expenses and keep within the budget of your project. Save your receipts.
 - Mentor undergraduate students in research, but focus on providing high quality mentorship for few students rather than running a large team. Consider mentoring promising undergraduates through BIOE183 and a senior thesis after consulting with me.
 - Assist with permits, funding reports, and other paperwork required for your research. Acquiring permits and permissions can take months to secure so plan accordingly. I submit most of the paperwork, but I may ask you for help with preparing a draft.
 - Aim to give a presentation (poster or oral) at one conference per year, starting with smaller local meetings and working your way up to international meetings. Funds are limited, so you will need to apply for travel grants, attend local conferences or ask me about other ways to pay for conference travel. Travel funds are available each year from the Graduate Division and the EEB department. All abstracts on which I am coauthor must be sent to me for review prior to submission. If I am your primary mentor for the project, I would like the chance to revise your abstract before you send it to other co-

authors. All talks and posters must be vetted in a lab meeting prior to conference attendance.

- Consider getting involved in outreach and engagement beyond the academic community in some form that you find rewarding (e.g., K-12, blogging).
- Be a good science citizen
 - Hold yourself to a high standard of academic integrity. Don't plagiarize or steal ideas. Acknowledge and appreciate the people who help you along the way.

3. Graduate student responsibilities

- Be prepared to work hard to finish in a timely manner, 2-2.5 years for masters and 5-6 years for a PhD.
- In general, 1-2 publications are expected from a M.A., 3+ from a Ph.D. program, and 1-2 per year from a Postdoc, depending on the project. I will be unable to sign your thesis until you have submitted at least one chapter (M.A. students) or three chapters (PhD students) to a peer-reviewed journal or have at least one chapter accepted and another submitted to peer-reviewed journals (Ph.D. students). It is very challenging to prepare papers for submission once you have moved on to a post-doc or other job; this is for everyone's benefit.
- Likewise, if you are a postdoc fresh out of another PhD program, or a PhD student fresh out of another MSc program, I expect that any work from your old program (e.g., finishing up or revising papers) will occur on your own time. Your normal working hours should be dedicated to work on our agreed-upon project in my lab.
- You are responsible for knowing and meeting the department and grad division requirements in a timely manner. Know the graduate forms that need to be filled out and deadlines for submission. Talk to the graduate program coordinator, to your lab mates and other experienced graduate students; consult the EEB Graduate Program website.
- Select a committee in consultation with me and set up yearly committee meetings.
- Aim to take your comprehensive exam by the fall of your second year and advance to candidacy no later than your third year.
- During the first two years, your time should be spent finding your niche, developing your skills, and integrating with the lab.
- You should have a well-rounded research proposal in standard NSF format with solid and obtainable research objectives and substantial preliminary data by the fall of the third year. This should comprise an introduction justifying the broader context and importance of the research followed by logical, well-researched methods for achieving the research objectives as well as a timeline of research and a discussion of the study limitations and potential pitfalls that may be encountered. This proposal will involve much back-and-forth editing between us before it will be ready for your committee. **Plan to begin working on this proposal during your first year (this will mostly entail reading, reading, reading)**, and shape it continuously as you try things and get preliminary data. This will give you time to switch projects if need be.
- All thesis chapters should be submitted to committee members prior to submission to a journal. Do not submit a thesis chapter to other committee members until we have mutually agreed it is ready for circulation or have agreed it is prudent to do so. This is to ensure we do not wear down our busy colleagues and that you get the very best feedback.
- Grad school is hard and inevitably there will be setbacks. You should have back up plans for your thesis chapters, and I will help you make them. Something(s) will fail, but that is fine if you are prepared. Use failures as good learning experiences – they happen to everyone.
- If you have problems or concerns that you feel you can't discuss with me, I strongly encourage you to talk to the graduate program coordinator and/or trusted faculty members. There are additional resources outside the department.

4. Field/lab technician expectations

- Field and lab technicians are a valued part of our lab group.
- Expectations are different from graduate students and postdocs in that most work is geared toward supporting existing research projects rather than beginning or leading new projects.
- You will not be expected to attend weekly lab meetings but I may encourage your attendance if you wish to participate.
- The unique circumstances of fieldwork can result in distinct vulnerabilities. Although the vast majority of field experiences will be safe and wonderful, please speak up if you or someone you know are uncomfortable with any situation (including weather, human safety, animal safety). Your wellbeing is more important than the data.

5. Undergraduate student expectations

- As an undergraduate researcher working with us, you will learn how research is done and get a sense for what life would be like if you choose a career in research / STEM.
- Undergraduates are expected to enjoy the experience of getting started in the lab! In addition to discovering what science is like, you will be expected to learn some of the basic skills necessary for effective sciences, how to read a scientific paper, how to design an experiment, how to collect and record data, how to interpret your experiments, and how to write about science effectively.
- Early on we will discuss your personal and program goals for your experience. If taking part in a research program or for course credit, you will need to know what you are required to complete the program/obtain credit and you are responsible for making this happen on time. If there are elements where you need feedback from me, please involve me early!
- You have the primary responsibility 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 self-motivation, engagement, scientific curiosity, and ethics.
- Generally, I would like undergraduate researchers to commit for a full academic year of 5-10 hours per week. This allows more time for you to learn the necessary skills and conduct a research project. After you demonstrate trustworthiness, we may work with you to develop a small project to complete under the guidance of a graduate student or postdoc. This work is expected to be conducted with rigor and quality, such that research can be written for publication in a peer-reviewed journal.
- You will not be expected to attend weekly lab meetings but we may invite you if you wish to participate.

6. Adviser expectations

- Provide a lab environment amenable to learning, open discussion of ideas, and producing credible research without discrimination or harassment.
- Learn to say your name properly and use your preferred pronouns.
- Along with your committee, guide you through your graduate studies program including courses and research.
- Meet with you regularly to discuss your research ideas, results, and progress. I will do my best to provide input and feedback, but I won't know the answer to all questions; you are likely working on new and exciting projects that require new techniques. Seek advice from fellow students, statistical experts, committee members or other faculty or members of the scientific community as necessary.
- Provide timely and constructive feedback on written research questions, proposals, progress reports, thesis chapters, and publications. **I aim to give feedback within two weeks – that**

means you should give me your draft more than two weeks prior to a deadline so you have time to incorporate feedback.

- Provide reasonable resources and financial support to meet mutually agreed upon research objectives. I will not be able to provide financial support beyond the end of departmental, project, or scholarship support. I will do all I can and provide guidance and suggestions, but resources are finite.
- Acknowledge appropriately your contributions to research and other efforts in presentations and publications.
- Notify you in advance of any anticipated, prolonged periods of travel or leave and, in consultation with you, set up structures to support you during my absence (e.g., a faculty mentor on campus, alternate lab meetings).
- Assist you in transitioning to the next stage of your career in a reasonable manner, whether that is academic or non-academic. Some of the main ways I do this:
 - Encouraging and supporting networking opportunities at conferences and workshops.
 - Submitting oodles of reference letters. Please fill out the Google Form on the Lab Website with the information I request. I will try to email you within 2 business days to confirm that I have received your request and will write the letter. Please send me a reminder 3 days before the letter is due.
 - Providing feedback on job applications.
 - Providing advice and consultation by phone or email.
- Help connect you with the resources you need. For example, consider using UCSC Career Center. They “*prepare students for what they want to do with their lives by developing relevant career skill*”, including workshops and one-on-one meetings to provide feedback on CVs, resumes, salary negotiations, job searching inside and outside academia, etc.

7. Authorship guidelines

- Below I provide some structure and guidance towards decisions regarding co-authorship. However, every paper and circumstance is different; please touch base with me to discuss authorship plans for your papers, and I will do the same.
- The best co-author situations result from clear expectations at the project beginning along with continuous open dialog throughout the effort. Generally speaking, our lab expectation is that co-authorship requires roughly two contributions from the following list: conception of idea, project design, supervision, data collection, data analysis/modeling, methods development, figure/table creation, manuscript writing, critical reviews. Those who contribute to only one category should generally be placed in the acknowledgements section, although this may be different on a project-by-project basis.
- Other members of the lab may or may not be include as co-authors, depending upon their contributions.
- Co-authors should be willing to be held accountable for all contents of the manuscript.
- Graduate students and postdocs will typically be listed as the first author and I will be listed as the last author, unless circumstances change, and an alternative arrangement has been made.
- Elephant seal projects have special considerations (see separate authorship guideline documents). For example, Dan Costa will be listed as a co-author on all publications/abstracts that use elephant seal biologging data. Please reach out to me to discuss your specific project/manuscript.

8. Diversity Statement

- As a community, we acknowledge the richness of commonalities and differences we share, the intrinsic worth of all who work and study here, and that science and learning are enhanced by

investigation of and reflection upon multiple perspectives. We also aspire to create respect for and appreciation of all persons as a key characteristic of our campus community and to achieve an environment that welcomes and supports diversity as well as ensures full opportunities for all who teach, learn, work and do research here. The EEB Department IDEA website includes our full diversity, equity and inclusion statement, actions and links to give feedback or to report a problem.

9. Land Acknowledgement

- The land on which we gather is the unceded territory of the Awaswas-speaking Uypi Tribe. The Amah Mutsun Tribal Band, comprised of the descendants of indigenous people taken to missions Santa Cruz and San Juan Bautista during Spanish colonization of the Central Coast, is today working hard to restore traditional stewardship practices on these lands and heal from historical trauma.