

Applying to Graduate School

This document provides an overview of the steps involved in the graduate school application process. Some advice given here is specific to the UC Davis Animal Behavior Graduate Group (ABGG). Potential applicants should reach out to all of their schools of interest to gather the specifics of that university, graduate program, and lab.

1. Choosing a type of graduate program

- First, identify the type of program in which you would like to enroll. This document will be most relevant to those interested in thesis-based programs, which are more research focused than course-based programs or professional schools.
- Master's and doctoral programs
 - Both master's and doctoral (Ph.D.) programs are considered thesis-based when, to graduate, the student is required to produce original research in addition to completing coursework. This research is supervised by a faculty member, often referred to as the principle investigator (PI), advisor, or major professor.
 - Master's programs typically take 2-3 years to complete, while Ph.D. programs usually take 5-7 years to complete.
 - While people often earn their master's before enrolling in a Ph.D. program, most Ph.D. programs do not require a master's degree. This should be confirmed with the coordinator of each program.
 - When deciding whether to apply to a master's or Ph.D. program, you should consider the cost of each and their funding options, your career goals, and your level of research experience.

2. Gaining research experience

- Research experience is the best way to figure out what you like and do not like to do in research and *is required for most thesis-based graduate programs.*

- It is best to have research experience in at least two different labs or projects before applying to a thesis-based program.
- To gain research experience, ask faculty or graduate students with similar research interests if you can work as a research assistant. You can contact them over email or talk to them during their office hours. Many schools have a center for undergraduate research where opportunities are posted.
- You can also contact faculty outside of your institution to ask about volunteer or internship opportunities. If you do not hear back after two weeks, reach out again.
- If you have completed your undergraduate degree, you can look for opportunities to work as a research technician. The information on looking for potential labs in the next section can also be applied to inquiring about research technician positions.

3. Identifying potential programs and advisors

- If you decide that a thesis-based program best suits you, then you can use the following steps to identify potential programs and advisors:
- Use scholar.google.com to find peer-reviewed papers published in the last 4-5 years on a research topic of interest to you. Use the authors list to identify faculty who are active in that area of research.
- Once you identify a potential advisor, visit their lab website or Google Scholar profile to get a better idea of their range of interests. Look up the graduate program(s) they are affiliated with and the program's requirements to see if they align with your interests.

Dear Dr. Tinbergen,

My name is Budding Scientist; I will be completing my B.S. in Biology this year at the Imaginary University of Learning and am planning to apply to graduate programs for the upcoming academic year. Having looked through your publications, and especially because of the work you published in "A Herring Gull's World," I believe your lab may be a good fit for me. For the past year I have been involved in research investigating the behavioral responses of magpies to brood parasitism by cuckoos; as a graduate student I would like to investigate the role of sign stimuli in the identification and rejection of cuckoo eggs by magpies.

introduce yourself

state your intent

show that you are interested in the advisor specifically

BRIEFLY describe your past experience

provide a question you are interested in exploring

Are you planning on taking new students in the next academic year, and would a project of this nature be of interest to you? If so, would you be willing to speak with me further about the kind of research that takes place in your lab and the application process to your program?

request specific information or action

Thank you for your time - I have attached my CV with further information on my background and experiences.

offer thanks and provide a way for the potential advisor to get more information

Sincerely,
Bud

3. Identifying potential programs and advisors cont'd

Things to consider:

1. Different graduate programs have different course requirements. Consider how much time you would like to devote to coursework and developing your research in the first couple years of your Ph.D.
2. How will you get funding? More information on funding options is provided below.
3. Does the program require that you serve as a teaching assistant (TA)? If so, for how many semesters/quarters?
4. How many graduate students are in the lab? How many postdoctoral researchers are in the lab? Senior lab members can be helpful mentors.
5. In order to have a successful career as a scientist, you must publish peer-reviewed papers. For this reason, you should assess the average number of papers a potential lab produces each year. Joining a productive lab increases the likelihood that you will publish your own research as a graduate student.
6. The choice of major professor and program is one of the most important you'll make in your career. You should choose to join a lab because it's a good fit for your research interests and your preferred mentorship style, because you get a funding offer that won't require you to take out loans, and because the current students in the lab say they're happy with their choice. If you don't get into a program or lab that meets those criteria, then it's best to wait a year and try again. You can use that time

to gain valuable experience that will help you regardless of where you end up.

At UC Davis: You can find all Animal Behavior affiliated faculty at UC Davis here: <https://anb.ucdavis.edu/faculty>

4. Inquire about a potential advisor

- Send an email to the faculty member that demonstrates specific knowledge of their research and why you are a good fit for their lab. See our sample letter above.
- Ask for the information you want explicitly. Is the faculty member taking students? Are they available to talk over the phone or Skype to discuss potential opportunities?
- Think critically about how you can contribute intellectually to their research pursuits. For example, what research questions are you interested in exploring that are of interest to that faculty member?
- The longer your email, the less likely it is to be read. It is worth the effort to convey all the necessary information as concisely as possible.
- If you don't hear back within two weeks, try one more time with a follow up email.
- Contact the graduate program coordinator with questions regarding the application and general questions about the program. They may also be able to help you identify potential advisors.

At UC Davis: You can find the ABGG coordinator's information on the following webpage: <https://anb.ucdavis.edu/apply>

5. Getting good letters of recommendation

- Ideally, more than one of your letters of recommendation will come from a faculty member who you have worked with in a research capacity. These letters help potential advisors get an idea of what you are like as a researcher. Letters from professors whose office hours you visited regularly or who taught a small upper division course you attended are also acceptable.
- Build relationships with faculty so they can provide letters of recommendation with specific examples about you, your performance and your potential as a graduate student. Ask faculty if they can provide you with a *strong* letter of recommendation.
- Allow at least 6 weeks for letter writers to complete their letters of recommendation. After you open your online application, many programs ask you to enter the names and email addresses of letter writers, then prompts the letter writers for letters and provides instructions for submission. Send the prompts as early as possible, rather than waiting until your application is complete.
- You can provide supplementary materials to make this process more convenient such as a document that outlines (1) what the letter is for and when it is due (2) what you would like each letter writer to focus on – work ethic, research, etc. and (3) a blurb about yourself to remind each letter writer of specific examples of good qualities that you want to emphasize. You can tell them about your professional goals and/or share your statement of purpose with them.
- Ask letter writers if they would like you to send them a reminder email at a specific date prior to the deadline.

6. Writing a statement of purpose

- Write about your research experience to date, skills, strengths, future research plans and professional goals.
- Write about what you hope to gain from the program.
- Pay attention to detail. No grammar or spelling mistakes.

7. Writing a personal statement

- The best personal statements show how you bring a unique perspective or skill to the table - something that wouldn't necessarily come from the formal research experience in the statement of purpose. The personal statement should tell a story that emphasizes the experiences and characteristics you have that demonstrate your ability to succeed as a grad student.
- Speak about the experiences and challenges you've faced that have shaped your academic career path.
- Include factors that you want taken into consideration when evaluating your record. For example, if you received low grades in a course, you can describe the changes you made to increase your understanding of the material. Avoid making excuses.
- Avoid using clichés e.g. "Ever since I was young I loved playing with animals".

8. Preparing for the GRE

- Before you begin to prepare for the GRE, be sure to check with your potential programs to see if the GRE is required. Note: The UCD ABGG requires GRE scores.
- Test taking skills play nearly as big of a role as knowledge itself. Therefore, when preparing you should both study the content and take a number of timed practice tests.
- Take the GRE early enough to retake it if you get a low score.
- In your grad school application, mention if you are ESL. This will affect the interpretation of the verbal GRE score.
- You can address a low scoring section in your personal statement. Describe ways in which you've shown your proficiency in that low-scoring subject. For example, you can explain that you've gotten good grades in math courses despite a low quantitative score on the GRE .

9. Preparing for the interviews

- Remember that this is a time for both parties, you and the grad group, to decide if it is a good fit. Prepare to make a good impression on the students and faculty, but also take time to think about what questions will help you determine if the program and lab are right for you.
- Do practice interviews with grad students, post-docs or professors at your institution.
- If you know who you will interview with, prepare a few questions about their research by reviewing their papers or their professional websites. You can also prepare questions about the program or about what it's like living in that area.
- During large group activities, it can be helpful to talk to current students in one-on-one or small group settings. Making a good impression with even one or two people can be very helpful during the selection process.
- Speak with current grad students in the potential lab *without the advisor present* to get a candid assessment of life in the lab.

Questions you may be asked:

1. What would you work on if admitted?
2. Why do you want to pursue a graduate degree?
3. Why have you chosen to apply to this program?

Questions to consider asking:

1. *Prepare insightful questions about the lab's research.*
2. What are the funding options for students?
3. What do you like best about working at this institution?
4. What type of advisor are you? Hands on? Hands off?
5. What are your expectations for being in the lab? Are you expected to be in lab M-F 9-5? Can you work from home?
6. What are your requirements for graduating a student?

At UC Davis: The UC Davis recruitment includes a dinner with grad students, a day of one-on-one interviews with faculty, and then a dinner with both faculty and grad students. Make a good impression on the faculty and students by practicing talking about your research experience and interests.

10. Finding funding

- Generally, thesis-based Ph.D. programs, and some masters programs, in the biological sciences provide financial support to students which covers university fees and tuition. This support usually includes a stipend for the graduate student to pay for living expenses.
 - Often this support is a combination of fellowships/grants, teaching assistantships (TA), and graduate student researcher (GSR) positions.
- Programs and labs vary in the funding they offer. You should inquire about funding options and seriously consider those options before choosing where to go.
- Ask the faculty member with whom you wish to work, the graduate group coordinator, and current students about funding opportunities.
- Additionally, you can look into external funding opportunities. These fellowships and grants may be offered by government institutions, organizations, or businesses.
 - The NSF Graduate Research Fellowship Program (GRFP) offer 3 years of funding which covers tuition, fees and stipend. More information can be found on the NSF GRFP website.
 - The Ford Foundation Predoctoral Fellowship also offers 3 years of funding. More Information can be found on the Ford Foundation website.
 - You can apply for these fellowships before enrolling in a graduate program, so be sure to do so once you decide to apply to grad school.
- While there is a lot of emphasis placed on several big grants (e.g. NSF GRFP), they are highly competitive, so be sure to include smaller or more niche grants when applying for funding.

At UC Davis

- **Applications for TAs at UC Davis are due before applications for graduate programs are accepted.** Even though you have not heard back from admissions you should submit a TA application which are typically due in late March or early April. The TA application in the Department of Evolution and Ecology can be found here: <http://eve.ucdavis.edu/ta.html>.
 - You can also ask current ABGG students to find other departments they've had success with.
- There are a number of fellowships you can apply for as a UC Davis graduate student listed on the graduate student financial support webpage: <https://grad.ucdavis.edu/financial-support>
 - It's best to go through each fellowship to identify which ones you are eligible for.
 - There are a number of UC Davis fellowships you can apply for when you apply for admission, some of which are directed at increasing diversity. These can be found on the fellowship webpage under "Internal Fellowships for Prospective Students".

- International students are often not eligible for the same fellowships and have additional international fees.
 - At UC Davis, international students are usually able to cover their stipend, tuition and fees with a combination of support from their advisor, the graduate group, and a TA or GSR position.
 - There are a number of organizations that provide external funding including, the Organization of American States, the Animal Behavior Society and the World Bank.
 - Refer to the UC Davis Global Affairs webpage for more information.

11. I didn't get in, now what?

- Some programs are very competitive and admit fewer than 10% of applicants. Not getting in does not mean you are not qualified. Follow up with the Admissions Committee Chair and/or the faculty member you interviewed with. Ask specifically what you can do to be more competitive in future applications.
- If graduate school is still something that you are sure you want to do, use this year to your advantage. Start building relationships with professors you'd like to work with. Having a professor who wants you in their lab can be a game changer in admissions.
- Try to find a position in the meantime that will help you build your skill set; becoming a field tech or working in a lab are both good options.
- Stay up to date with your field of interest by reading scientific papers regularly. Some papers may not be available due to lack of university access, but many papers are open source. You can also contact the author directly to gain access.

Questions to consider asking:

1. Should I reapply to the program?
2. Are there specific experiences I can gain that will make me more competitive?

12. I got in, what are my first steps?

- Contact your PI to come up with a plan and discuss their expectations of you in the first year, e.g. focus on courses, come up with a grant proposal, frequency of meetings.
- Inquire with current graduate students about logistics (see questions below).
- Figure out your funding by contacting your advisor and the graduate group coordinator.

Questions to consider asking:

1. When is my first check going to come in?
2. How do I establish residency in a new state?
3. What are the TA opportunities like? Do I need to apply for TAs right away?