Document last updated: 9/26/2024
Document adapted from materials in the Hamilton Lab

FAQ about applying to be a PhD student in the Quad Lab

Michelle A. Hurst, PhD
Assistant Professor
Psychology & Center for Cognitive Science
michelle.hurst@rutgers.edu

Applying for a psychology PhD can be complex, challenging, overwhelming, and hopefully exciting too! The goal of this document is to "demystify" the application process and provide some tips and guidance for applying to my lab. Some of this information might be generalizable to other labs or programs, but much of it will be specific to us.

Will you be accepting a new PhD student for this cycle?

The best place to find this information is on the lab website: https://www.thequadlab.com/join/
If we haven't yet updated it for the upcoming cycle, you can also email me to ask.

How do you review applications?

I review every application from those who indicate that I am their first- or second-choice mentor. I may also review applications from others who apply, but not always. When reviewing, I am most excited to learn about the applicant's research interests, prior experiences, and long-term goals. I like to see examples of how the applicant is motivated and excited to pursue graduate studies, including how they might engage with others in the lab, contribute to the lab and department community, and fit with the lab's current and future research directions.

What does it mean to be a "good fit" for your lab?

Everyone talks about the importance of the applicant and mentor/lab being a "good fit." But what does it mean to be a "good fit"? Ultimately, there is no one factor that makes someone a good fit and there is not one specific combination that influences the goodness of fit. However, below I have done my best to outline what "fit" might mean for me and the Quad Lab.
- Demonstrate key interests and commitment to the lab's core research areas. To learn more about the research we do, read some current papers from the lab (https://www.thequadlab.com/publication/) and look at our ongoing research projects (https://www.thequadlab.com/parents/)
  - This may be reflected from your past research or other experiences, as well as your current and future interests in your personal statement.
  - **Important**: You do **not** need to have experience working with children in research settings or doing research on one of these exact topics. It is most important to demonstrate how your past work (and relevant skills) lead you to your current interests, and how they will support your ability to pursue a PhD in my lab.
- An excitement for learning and problem solving.
  - A career in research – and especially academia – is primarily about learning and problem solving. If we don't know something about the human mind, how can we figure it out? If we don't know a technique or method for figuring it out, how can we learn that?

- o There is also a lot of rejection and failure in research – being motivated by the process of learning and problem solving (vs. the outcomes of research results) can help people stay motivated amidst the rejection and failure.
- Evidence of independent research experience (e.g., by leading a senior thesis, research project, and/or in-prep or published first-authored posters, talks, or papers).
  - o It is important to reflect that you have gained some experience as an undergraduate, master's student, and/or in a postbaccalaureate position.
  - o Non-traditional students are encouraged to apply, and it is still important to have gained some relevant research experience to be competitive and to "hit the ground walking (or running!)" and with a solid background, skillset, and commitment when you start.

What kind of research topics are a "good fit" for your lab?

There is no one area that we focus on exclusively, but we are most interested as a lab on understanding cognitive processes that underly our ability to track and reason with quantitative and/or relational information in our environment.

Applicants with the following **interests** may be a good fit to our lab:
- Proportional reasoning
- Fraction learning
- Cognitive development and change
- Numerical cognition in adults and children
- Relational reasoning and decision making
- Mathematical models of strategies

What if my prior research experiences are not what I want to do?

That's okay! It is expected that you are growing and continuing to figure out your path! Your path may also be one of exposure and convenience, such as the university you were at beforehand (and what your prior mentors did) and/or the job opportunities that you had. I recognize that the experiences you had may not reflect your current or future interests. However, it is important to demonstrate how your past work (and relevant skills) maps onto your current interests to highlight your fit with the lab research and mission!

How does the GRE and GPA influence my application or chances of admission?

As of now, the GRE is not required to apply! If you are applying only to me as a mentor (and not other faculty in the program), you do not need to send your scores. Deciding not to send your scores will not be interpreted as you having done poorly. However, you are welcome to send GRE scores if you think this would be beneficial to your application (e.g., to offset an undergrad GPA), but it will not be counted against you!

Personally, I do not heavily weigh undergraduate GPA scores in my decisions for interviews (or admission). I am most focused on the overall picture of the applicant across all domains, most heavily focused on research interests and experiences, and recent academic endeavors that reflect your "fit" for the lab. I recognize that there are many factors that can influence GPAs. Perseverance and determination are better predictors of graduate school success, and that is weighed more heavily when I am reviewing an application. It may be helpful to comment on a

GPA that is lower in your personal statement or in a letter of recommendation, especially if you can use it as an example to highlight your strengths.

Should I email you to express my interest in applying to your lab?

You are more than welcome to email me to introduce yourself or if you have specific questions about my lab or research areas. Although applicants are often advised to email in advance, your decision to email me (or not) will not directly impact your odds of receiving an interview invitation or an offer of admission. Prospective applicants are highly encouraged to review my lab website and online materials, which are specifically designed to answer common questions and share resources to help with the application cycle. If there are specific questions that are not addressed, I am happy to answer them! In the spirit of equity, please note that I do not have video or phone meetings with prospective applicants. I will answer any of your questions by email! Although it may take me some time to respond to you via email as a prospective applicant, please note that this does not reflect my responsiveness to my current students. My current students are my top priority, so it may be challenging to reply to a large number of questions or responses at once!

Should I list you and another mentor in my application or will this hurt my chances?

It will not necessarily hurt or help you, since we all independently review applications. If you are listing multiple mentors, it is important to include a compelling narrative about why you believe you are a good fit with both of these mentors. For instance, perhaps your research bridges across both mentors' research, or you believe that you could work well with either mentor because of the methods they use or populations they study. However, it may not be best to select two mentors because you haven't quite decided your research area (though this is understandable!), which may make it harder for you to solidly gain traction. Working with multiple faculty members (and having secondary mentors) is certainly encouraged, but it is typical for students to have a primary mentor upon admission and then collaborate with other faculty mentors, who can also serve on committees and as secondary mentors.

How does mentorship and project supervision work in your lab?

My goal as a mentor is to help my students and postdocs become independent scientists. What this looks like will change over time – a first-year graduate student will have a different experience than a fifth-year graduate student! In general, I have one-on-one meetings with students once per week and a lab meeting with the entire lab once per week. We use Individual Development Plans to guide your progress through the program, to ensure you're meeting the program milestones AND are getting the experiences and accomplishments necessary to move onto the next step when the time comes (e.g., to get a postdoc; move into a data science role; work for a non-profit). We'll set this plan together and revise it at least once per year, as experiences and interests change too. I try to avoid "assigning" projects to lab members. Instead, my hope is that you'll develop an area of research within the lab's interests. Of course, early on that may also involve some projects suggested by me or finishing up existing projects in the lab – particularly when these opportunities allow you to develop specific targeted skills. However, your milestone projects (2nd year project, dissertation) should largely be your own ideas, brought together through our collaboration rather than "assigned" to you.

What's the lab culture like?

In general, we work had to create an environment that is equal parts inclusive and supportive, as well as intellectually exciting and challenging. Our goal is to do good science – and to have fun while we do it. This means being open to giving and receiving feedback, transparent about our processes, and willing to admit when we've made mistakes. It also means giving and receiving feedback with constructive kindness, supporting each other through mistakes, and being willing to learn and adapt as we go. Our lab is primarily in person, with most core lab members here 4 or 5 days per week.