

# FAQ for prospective graduate students

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[www.seas.harvard.edu/climate/eli](http://www.seas.harvard.edu/climate/eli)

- \* *Who can I contact about applying to the graduate program?* It is best to get in touch with all faculty with whom you may be interested in working, and who seem relevant to your interests. Please [email me](#) if interested, and we can consider arranging a video chat. You are welcome to contact me early, even many months before the application deadline.
- \* *Will you be taking new students this year?* I normally admit one to two students a year, please feel free to email me to ask about this.
- \* *What is the required background for joining your group?* An undergraduate major in physics and/or math.
- \* *Where do I apply to your group?* Most students apply either via the Earth and Planetary Science department graduate program (recommended, [here](#)) or the Applied Math program ([here](#)) in the School of Engineering and Applied Sciences (SEAS, [here](#)). I have also advised graduate Ph.D. students from the applied physics program in SEAS ([here](#)) and from the physics department ([here](#)).
- \* *What are the most important criteria for admission?* This varies from group to group; I encourage students with a strong undergraduate background in physics/math to apply. It does not matter if you did not take courses in Earth science/ climate/ fluid dynamics as an undergraduate student, as there are plenty of opportunities to take these courses in grad school. Some of our incoming graduate students have research experience, others less, and this is not a major factor for me. Be sure to mention in your application the faculty you are most interested in working with; faculty do pay attention to this list and to the order in which you list your faculty interests.
- \* *What courses will I be taking?* Please see the “[proposed curriculum](#)” for a typical first and second-year climate dynamics grad student.
- \* *What financial support can I expect?* All our grad students receive full support (a monthly fellowship plus fully paid tuition) for the duration of their Ph.D. assuming good standing.
- \* *Are any of your current or previous students available for me to contact?* Prospective grad students are very strongly encouraged to get in touch with our current or previous students to hear more about the program and the group. Please see [our people web page](#) for the web pages/emails of all current and past group members.

- \* *When can I visit Harvard?* All admitted students are invited to visit before making their decision. If you are interested in visiting before you apply, please get in touch with me, and we will do all we can to host you for a visit.
- \* *What is a typical trajectory toward a Ph.D. in your program? What requirements need to be satisfied?* Incoming graduate students focus on courses during their first two semesters, taking 3–4 courses each semester, while we also engage in initial discussions of possible research directions in parallel. Their first significant research experience is often during the first summer, which is concluded with a presentation to other students and faculty about their summer work. The focus shifts toward research and to fewer courses (1–2 per semester) in the second year. The oral (qualifying) exam is typically taken at the end of the spring semester of the second year. Students then proceed to work on their research until graduation in 5 (up to 6, if needed) years. In EPS, students are expected to take four courses in their research area, two math courses, and two breadth courses in Earth science not related to their research area. Most students take 11–12 courses, adding ones they find useful and interesting, both in their research area and in unrelated subjects, to broaden their horizons. Students are required to teach (that is, be Teaching Assistants in) 2 courses, although most grad students in our group teach many more courses, as they find this a very rewarding experience, and there is some financial compensation for that. Course and teaching requirements are a bit different for SEAS/applied math; see the SEAS webpage for details.
- \* *What kind of research projects will I be able to get involved in? How soon will I be able to start my research?* Please see our [research web page](#), and also our recent [publications](#) to get a feeling for our past and current projects. Once you arrive as a grad student, we will have many conversations to try and find a research direction of common interest and gradually define the research direction. Our normal mode of operation in research is using a combination of simple models that allow one to understand a given phenomenon in great depth, with the use of observations or complex/realistic model simulations to verify the proposed mechanisms. We use observations (including reconstructions of [past climates](#)) mostly as motivation, although sometimes also engage in quantitative data analysis.
- \* *What is the typical career path of alumni from your group?* Please see our alumni list [here](#).
- \* *Can I switch research advisers during my Ph.D.?* Yes, our grad students are encouraged to look around during their first year and to find a faculty member whom they would want to work with and who is interested in working with them and can support their fellowship. Nearly all incoming students stay with the adviser they initially selected when applying.
- \* *What are the application requirements, and the application deadline? Do I need to take the GRE?* Please see the [EPS](#) or [SEAS/ applied math](#) pages for this. I, personally,

find the GRE grade helpful in identifying students who may be expected to do well in our program when the application requirements allow submitting it.

\* *Can I apply for a master's degree instead of a Ph.D.?* Our incoming graduate students engage in a direct Ph.D. program, and while doing so, they can apply for an M.A. after a couple of years and after satisfying some course and teaching requirements. I am not affiliated with the programs in the School of Engineering and Applied Sciences that award M.A./M.Sc. degrees not as part of a Ph.D. program.