

Applying to GALCIT

An unofficial guide by grad students

2020-21 EDITION

Graduate Aerospace Laboratories at Caltech

Planning on applying to GALCIT? If so, you are making a great choice! While we might not be as big as some other graduate aerospace programs, our small size and great location allows us to provide a unique graduate experience while maintaining a high level of academic excellence ([currently ranked #1](#)).

Here are some things that set our graduate program apart:

- All the first-year students' tuition and stipend are fully covered by GALCIT or external funding sources such as fellowships or by pre-arranged exchange programs. This allows students to focus on taking courses to build the necessary background for their graduate research. At the end of the first year, students will have fulfilled their requirements for their M.S. degree.
- Coming into GALCIT, students have no commitment to a particular advisor and will be given the opportunity to interact with multiple faculty throughout the first year to find someone who matches their research interests.
 - You can even consider faculty outside of GALCIT!
 - By the end of your first year, you will select your advisor and begin your research in their lab that summer.
- Close ties with NASA Jet Propulsion Laboratory allow for unique collaboration opportunities as well as the opportunity to take courses taught by JPL experts.
- With Caltech being situated at the base of the San Gabriel Mountains and a short drive from both downtown LA and the Pacific Ocean, there is plenty to do on the weekends or even just when you need a break from studying!

IMPORTANT NOTE:

This is an unofficial document. Please refer to the following webpages for official instructions from Caltech. In case of a discrepancy, always follow the official instructions.

- <https://www.gradoffice.caltech.edu/admissions>
- <https://galcit.caltech.edu/academics/admissions>

What you need to apply to GALCIT

(and most other aerospace grad programs)

- Online application form (Caltech can waive the application fee)
- 3 letters of recommendation
- CV/résumé
- Transcript(s) (unofficial transcripts may be enough)
- Personal statement
- TOEFL scores, if applicable

Note: The General GRE exam is not required for the 2021-2022 admission cycle. Submitted scores will not be considered.

Application timeline: what to do and when to do it

This timeline is just a rough guideline, and you don't need to follow it exactly. Also, this process can be stressful, so don't forget to take care of yourself!

Now: Start getting materials together

- Think about **where to apply**.
 - It's good to organize your thoughts.
 - It might be helpful to make a spreadsheet with important dates, requirements, and faculty of interest from each school as you go along.
 - Feel free to reach out to people!
 - You can ask current grad students what it's like working with Prof. [insert name], what the climate of a department is like, etc.
 - (Note that faculty are not always responsive, and it might be easier to contact their grad students.)
- Start working on your **CV**.
 - [Here's](#) a guide about what can go in it
 - [Here's](#) a sample CV (we recommend making yours in LaTeX)
 - It is a good idea to also work on your résumé as some schools might ask for one
- Figure out what **tests** you need to take:
 - Although some schools require the [general GRE](#), GALCIT is **NOT** requiring it this year.
 - If you do decide to take the GRE, [register](#) early for the September and/or the October test.
 - Study tips: Take the official practice tests, especially the most recent ones! Some of us found the books [5 lb. Book of GRE Practice Problems](#) and [Official GRE Power Pack](#) to be useful.
 - If your first or native language is not English and you don't have a degree from a US institution, you may need to demonstrate English proficiency with the [TOEFL](#). [Dates and locations](#) vary by country.

September-ish: Letters of recommendation

- Ask for **letters of recommendation**.
 - Who to ask?
 - **Best:** past research supervisors
 - **Good:** academic advisors or professors who know you well
 - **Not ideal:** professors who don't know you well (even if you got an A in the class they taught)
 - How to ask?
 - Ask early! They might be able to suggest places to apply
 - Explicitly ask if they can write you a "strong" letter
 - Send your letter writers **info**:
 - Once you've decided where to apply, give your writers a list of places and deadlines to send letters. Update this regularly!
 - Also send them your CV/résumé and a copy of your transcript, along with whatever extra information they ask for.
 - If you have extenuating circumstances that might explain other parts of your application, consider asking your recommenders to mention them in their letters.

October-ish: Fellowships and essays

- Be sure to look into **fellowships** and see if any might be right for you.
 - Don't think you'll get a fellowship? Apply anyway, if you can. It never hurts, and it's really useful when writing other applications.
 - This also demonstrates initiative and is often looked at favorably by faculty and admissions committees
 - For US Citizens, the [National Science Foundation Graduate Research Fellowship Program](#) (NSF GRFP) and the [National Defense Science and Engineering Graduate Fellowship Program](#) (NDSEG) are great opportunities. Check their respective websites for this year's deadlines.
 - For more tips on applying to the NSF GRFP, check out [this useful website](#). Even if you don't apply, check out the great example essays hosted there!
 - Other fellowships worth looking into are the [NASA Space Technology Graduate Research Opportunities](#) (NSTGRO) and the [Hertz Foundation Fellowship](#).
- Work on your **essays / statements of purpose**.
 - **DO** (or at least try to):
 - Express your career goals and research interests
 - Briefly describe past research, emphasizing your contributions
 - Explain why a particular program is a good fit for you
 - Name drop professors who you might want to work with
 - Ask people to look over your statement!
 - Especially ask grad students, postdocs, and/or professors
 - Get a friend to check for clarity and grammar
 - Send to your letter writers once you have drafted
 - **DON'T** (or at least strongly reconsider):
 - Be overly flowery—this statement is much more focused than a typical undergraduate application essay!
 - Use clichés (e.g. "I fell in love with space as a child"; these tend to be overused and don't add much useful info)

November-ish: Work on applications

- Send your **transcripts**.
 - Fellowship and grad school applications both typically require transcripts. Depending on your university, it can take a long time to get official transcripts sent; get it done early and avoid rush charges.
 - Note that GALCIT will accept unofficial transcripts!
- Make sure your letter writers get recommendations in!
 - Caltech's [online form](#) will send you a notification when a letter has been submitted on your behalf. If they are not in yet, gently remind your letter writers; they're busy and might have forgotten.

December: Submit applications

Application deadlines are usually in December-January (note that for some US schools, deadlines for international students may be earlier than for US students). GALCIT's deadline is **December 15**.

After submitting applications: try not to stress!

January-March: Wait to hear back

- For some schools, you may be interviewed over video chat if you make it to their short list.
 - At GALCIT, interviews with faculty are traditionally done in-person during the GALCIT visit day but may be subject to change depending on the public health situation in Pasadena in the spring.
 - For international students, these interviews are typically held online.
 - During these interviews, faculty members will ask you about your previous research experience and research for graduate studies. They will ask you to discuss your previous research (both details and broader context) and ask if you have any questions about Caltech.
- Decisions for aerospace graduate programs usually start coming in late January. Caltech will post all final decisions by **April 1**.

February-April: School visits

- If you make the short list, someone from the university will be in touch about visiting GALCIT (all expenses will be paid).
 - This may not be the case for international students
- For some other programs, school visits occur after acceptance.
- Check out these [tips for visiting graduate programs](#), and this list of good [questions to ask on grad visits](#).

For US schools, **April 15** is the deadline to decide on a graduate school.

Before April 15, take your time to make a decision! But if you're sure that you want to reject an admission offer, please let the school know as quickly as possible. This lets them admit students off the waitlist and gives these students more time to consider their option.

FINALLY:

Remember that grad school admissions are often driven by factors you have no control over (funding, which professors are looking for students, etc.)! You are **not** defined by the schools you do or don't get into, and plenty of aerospace engineers (including some of us) didn't go to grad school right away. You can be successful no matter what you decide to do.

Questions? Comments? Contact Brayden at baller@caltech.edu

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