# Steps to a Graduate school in the US: monthby-month

#### Disclaimer: The views expressed here are solely those of the author in his private capacity and do not in any way represent the views of the institute or any organization.

This webpage is certainly not the first in its field. You should definitely read **Saswata Roy's article** before going ahead. He is the real trendsetter and has earned my admiration for being a jobless fanatic.

This webpage has some useful information about Graduate school applications to the US. During my time, I found most of the information from the internet in a rather convoluted messed up form and hence decided to compile all my wisdom in a single webpage. You are free to follow or not follow the points. This webpage will be helpful to those who are looking for the thrill and grill of a typical US graduate school. For people in applied sciences, Europe/Okinawa might be a better destination (I am assuming that such people believe that they already have had sufficient coursework and are ready to start their research from day 1 of graduate school). I have very limited idea about them and would hence refrain from commenting.

It is also important to mention what this webpage is not. It does not outline a **path to admission** into a graduate school. You won't find answers to questions like: *How good is my profile? Is my GRE score competitive? Do I need to have publications? Is my SOP okay?* Two good reasons for not talking about such questions are: 1. **Nobody knows what happens inside** the graduate committee when they make admission decisions. (People have written volumes of books about it and all they end up being are speculations. Vacuously there is a good fiscal reason why graduate schools don't want to reveal their process and hide it under the cloak of "holistic" evaluation.) 2. **Such questions are field-dependent**. Theoretical fields have less funding, less vacancies and hence an intense competition.

This webpage might be a bit biased towards Physics. Other subjects differ in details (like for biology, you need to offset the timeline by a month).

The process should ideally start by end of your eighth semester. Starting sooner is okay, but later is not advisable.

By this time, you (or your parents) should have a credit card, to pay for GRE, ToEFL and university applications.

If you have N applications, the minimum ammount of money you need to have for applications (in INR) : (13,000 + 13,000 + 10,000 + N\*10,000). With contributions from GRE + ToEFL + S-GRE + N\*(Application fee + GRE score sending fee). If you plan in advance, you can save some money. Like, if you finalize 4 universities before sitting for GRE and ToEFL, you can send scores for free, saving 46\*4 = 184 USD = 12,000 INR. Also, some universities do not charge application fee if you finish your application well before their deadline.

## May - July

Analyze your four years spent at IISER-k. Zero in to a field which you like and wish to work in. This decision should involve your grades in related courses. Start looking for universities: make a list of 10 Ambitious, 10 Reach and 5 Safe universities. Make a spreadsheet with university name, deadline, fee, and POI. Discuss with the faculty, certain IISER-k faculty are very helful in this business. Don't shy away from a healthy discussion with your seniors.
 Some useful ranking websites: US grad news, QS and ARWU. Avoid overall rankings as they are biased towards established "branded" universities.

**Avoid trap sites like Yocket and StupidSid.** It is easy to disregard ranking and fall prey to flowery descriptions of select US universities.

[For Physics students, check out Physicsgre [2017] [2016] [2015] etc and gradcafe to get a feel of how competitive it is to get into the university. **Keep in mind that that the bar for international students is generally higher.** "A 770 = I 980" - you are on the right track if you understand the equation.]

- Start preparing for GRE. Download Magoosh app, both the flashcards and vocabulary builder. You should master the flashcards by end of summer. Since GRE is more than a vocab exam, I strongly recommend solving the <u>Manhattan 5-lb book on GRE practice problems</u>, as it keeps your feet on ground while preparing. Others, like Kaplan underestimate the dificulty of GRE. Ask your seniors for their prep books. If you are comfortable with PDFs these books are available online (if you know where to look!). Book your GRE by end of summer, there is no need to hurry as there are many dates and slots available. **Book only when you are prepared to give the exam**.
- There is no need to prepare for ToEFL separately. Start watching hollywood movies and TV shows without subtitles and you will do just fine. **Book only when you get Prometric as your test center.**
- Subject GRE requires serious preparation. Unlike GRE and ToEFL, Subject GRE is conducted once in a year (thrice, if you consider Nepal an option). On the other hand, only a few universities ask for subject GRE scores (most of the good ones do!). For physics preparation, a simple <u>google</u> will provide you several PDF notes. Ohio State University has been particularly helpful in providing some Test papers as well. Check <u>them</u> out and use wisely. UGC-NET exam preparation is a good starting point for P-GRE. **Book Subject GRE as soon as possible.**
- Dates for these tests is your personal decision. Some people want to keep Subject GRE (last week of October) distant from their GRE. Some wish to keep a few buffer months to retake the GRE and hence give it in early August. Do what fits you best.

# **August - October**

- GRE tries to make sure all the scores form a gaussian, meaning there is a higher probability of scoring 315-320 than scoring 325-330. It does so by making the sections adaptive. If you do good in your first section, be prepared for a diffcult second section. Likewise, if you do bad in the first section, your second section will be easier. OIOW, you have to be very bad for a bad score and very good for a good score.
   GRE score is not a selection criteria, it is a rejection criteria.
- Physics GRE is a different ball game altogether. There will be 100 questions and 170 minutes. It is indispensable to take breaks during the exam, and these breaks should depend on the time and not on the number of questions remaining. The difficult level of questions also follows a gaussian. The most difficult ones are hiding in the middle. ETS

wants you to panic in the last half and fall into trap answers. Remember: **All questions carry equal marks, you are not gaining any more by solving difficult questions**.

- Being done with GREs and ToEFLs, it is the time to finalize the university list. Do an extensive survey on <u>gradcafe</u> to find what scores it takes for an international student to get in. Have discussions with your thesis advisor and summer project mentor(s).
- Start looking for recommendations. You generally need 3 letters: one from MS thesis advisor, one from a teacher and one from a summer project mentor. The three can certainly have an overlap. **You should avoid clashes in recommendation with your batchmates**.
- Start writing pre-application emails. For reasons mentioned earlier, professors will either ignore your email or reply with a convoluted diplomatic answer. In most of the cases, they will not mail back saying "I advise you not to apply to our competitive program". You have to read between the lines in order to understand what they mean. "in-principle you can apply" and "I strongly recommend you to apply" -- are definitely different and only one of them is worth your 100 USD.
- Your final list of universities should have : 5 ambitious, 4 reach and 1 safe university. It is a good idea to avoid clashes with your batchmates, at least with those who are applying in the same specialization. The length of list depends on your fiscal situation, GRE scores, confidence, insecurity and desparation of being in the US.

[Your university list might change when your Subject GRE score arrives (~4 weeks from test date). Have your back-ups ready.]

### November

- Perhaps the most stressful time. Spend the full month on crafting a general Statement of purpose. Discuss with your seniors, search online and get faculties to proof-read your SOP. Avoid flowery language and cryptic quotes, but make it as technical as possible. The general SOP should answer the following questions: Why do you want to do a PhD? What makes you fit for research? What experience do you have in the field? What do you think are big questions in the field? What are your ideas for solutions to those questions? How will a graduate school help in your professional career?
- Simultaneously, maintain a ledger with the account details of various university application forms. Almost all universities have their own portal (some of them have a common form like ApplyWeb). Fill in the trivial details like name, address etc. Leave the fields where you are asked to write about yourself/research etc. Be extra cautious before filling them in. Some universities also ask for Diversity statement and/or personal statement. Spend one good week working on either of them.
- Log into ETS website to send the GRE scores. You get 4 universities for free if you fill them on/before the day of exam. For each extra university you have to pay 27 USD (General + Subject or General or Subject). ToEFL scores should be sent even before as they take more time to be delivered to the university.
  You have to pay the application fee + GRE score sending fee + ToEFL score sending fee. A typical breakdown: 90 USD + 27 USD + 19 USD, for one complete application. All scores must officially reach the university before their deadline (some universities are a bit relaxed).
- Since some of the universities have deadlines in November itself. Tailor your general SOP to suit that university. You should now answer questions like: Why this particular graduate school? Why this university? Whom you want to work with? Why that faculty? What can

# **December - January**

• You will soon become proficient in appying to graduate schools. Unfortunately that makes you prone to careless mistakes. It is a general rule to proof read your material twice in two different fonts before submitting it to the portal.

# February - April 15

- Sit back and relax. Universities generally send out acceptances first. Check <u>gradcafe</u> regularly and be updated.
   Avoid discussions on "unofficial acceptance/rejection/waitlist. Nobody knows what happens inside the admission committee. You are not accepted/rejected/waitlisted unless you get an email from the university.
- You might get interview calls (usual for biology, unusual for physics). Don't rely on iiserk\_wireless, request the computer center for LAN access. Dress well, prepare thoroughly and learn some small-talk before sitting for the interview.

# 15 April - beyond

- Dissect your offer. Mail the university and see if you can get an upgrade.
- The university fellowship is the best offer, it gives more stipend without compulsion on TA responsibility. Next best offer would be TA+RA, where you have the choice of joining a group. Bare TA is the standard offer.
- The stipend is more or less the same for fellowship student, TA and RA. The only difference is the source of funds: fellowship comes from the university, TA comes from the department and RA comes from the faculty's grant whose group you are in. **Hence it is advisable to ask Professors if they have sufficient grants to support your RA**. You certainly wouldn't want to do TA for full duration of your PhD. University fellowships last atmost for a year.
- Look for housing, find other indian students in the university. Almost all universities have an "Indian Students Association" (ISA). Contact them.

\*\*\* Congratulations, if you made this far. \*\*\*

Just in case this <u>webpage</u> goes down, here is a <u>PDF</u> version of the same. You might want to save an offline copy. Unfortunately I won't be able to make any edits so please mind any grammatical mistake and/or typo. Also, feel free to shoot me an email to let me know your comments, if any! My email id is name.surname@gmail.com

All the best!