Advice for applications to graduate school Masters programs.

- There are three important things you need to get into a good graduate school program –
- 1) good grades in subjects relevant for field of research.
- 2) engaging letters of reference from 2-3 professors.
- 3) a strong statement letter.
- Most students have clear ideas about the first criterion, so I want to speak more about how you might develop relationships with mentors who could engage you in research, and then write strong reference letters, and how you'd get enough experience to write a strong application letter.
- In particular I want to talk about what 2nd and 3rd year students might do ahead for 4th year.

What does the School of Graduate Studies (SGS) require?

Read the guidelines well before due dates, which vary by program!

- Link to the SGS application page:

https://apply.sgs.utoronto.ca/Default.aspx

- Link to the detailed instructions:

https://apply.sgs.utoronto.ca/instructions.aspx

- Other universities grad school admission are broadly similar, so we'll use SGS as an example.

https://apply.sgs.utoronto.ca/Default.aspx

This is technically true, but only once you have already written the statement of purpose and lined up academic references, both of which you'd need to start doing weeks or months in advance.

- Check what specific SGS program requirements are.

  - Generally *cannot* get into any programs with less than B+ GPA for last two years. Below are programs I have some affiliation with.

  - Geography at UofT - https://www.sgs.utoronto.ca/programs/geography/

  - Earth Sciences at UofT - https://www.sgs.utoronto.ca/programs/earth-sciences/

  - Physics at UofT - https://www.sgs.utoronto.ca/programs/physics/

  - EEB at UofT - https://www.sgs.utoronto.ca/programs/ecology-and-evolutionary-biology/

  - M.Env.Sci and Env Scie Phd at UTSC - https://www.sgs.utoronto.ca/programs/environmental-science/

You should start a conversation with a potential faculty supervisor well in advance of applying.

- You need to know just how competitive various programs are to get into, how much course work they do and how much financial support is available
- Medical school and law school are well known to be very competitive grad school programs with acceptance rate around 10%. (https://www.macleans.ca/education/medical-school-in-canada-what-does-it-take-to-get-in/)

- In the sciences the acceptance rates vary widely. For instance I have a friend who is associated with the VECTOR institute at UofT who does AI research. This is a hot topic right now and they get thousands of applications, with success rates of about 10% for Canadian applicants.

- Most science programs have acceptance rates of more like 30% to 50% for plausible candidates.

- On most admissions committee, they need to be convinced that student would do well in program (which is partially shown by strong grades), and that there is a potential supervisor who has funding and interest to take on student.
- Which means you should have started a conversation well before actually applying to program.

- Detailed SGS instructions:

https://apply.sgs.utoronto.ca/instructions.aspx

- It might not be super clear, but there are THREE really important parts to application- grades, references and a statement of purpose

1

Electronic or Scanned Transcript Submission

All applicants are required to upload **one** electronic or scanned transcript from each post-secondary institution attended. It must be up-to-date, readable, and will be used by the admissions committee to make a decision on your application. You can only submit one transcript per institution. If your institution issues separate transcripts for each degree, you will need to combine the transcripts into one document.

2

References

You will need to supply your referee contact information for as many references as are required for the program. The system will automatically email an electronic submission request to each referee with a valid email address **after the application fee is paid**.

3

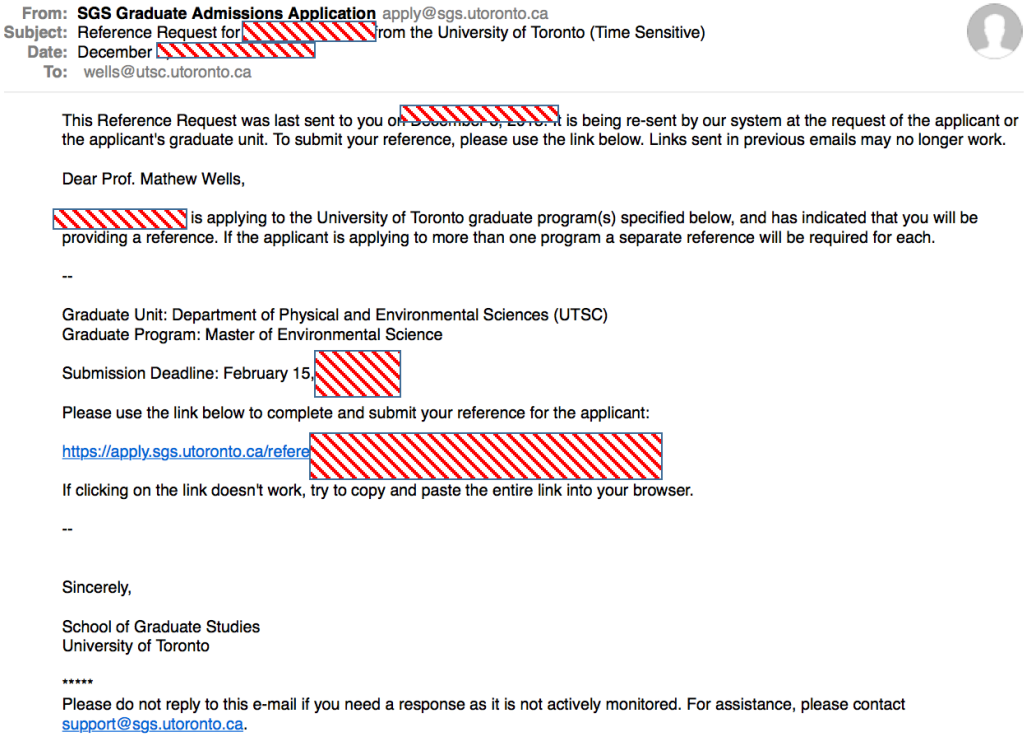
Supporting Document Submission

You will be expected to submit your supporting documents online unless otherwise instructed. Be sure to read the instructions for each document requirement, as practices may vary among graduate units. Acceptable formats for documents include Word 97-2003 (.doc), PDF (.pdf), and Rich Text (.rtf). Sizes must be under 500 kilobytes. It is your responsibility to ensure the documents are submitted and/or received by the graduate unit by the document deadline or other deadline as set by the graduate unit.

- The grades and transcripts should indicate that you have done well in courses that are relevant for the field of study that you are proposing.

  I'll talk about the importance of the letters of reference first, then about the statement of purpose letter.

- # What I see from SGS when asked to write a reference letter



From: **SGS Graduate Admissions Application** apply@sgs.utoronto.ca
Subject: Reference Request for [redacted] from the University of Toronto (Time Sensitive)
Date: December [redacted]
To: wells@utsc.utoronto.ca

This Reference Request was last sent to you on [redacted] is being re-sent by our system at the request of the applicant or the applicant's graduate unit. To submit your reference, please use the link below. Links sent in previous emails may no longer work.

Dear Prof. Mathew Wells,

[redacted] is applying to the University of Toronto graduate program(s) specified below, and has indicated that you will be providing a reference. If the applicant is applying to more than one program a separate reference will be required for each.

--

Graduate Unit: Department of Physical and Environmental Sciences (UTSC)
Graduate Program: Master of Environmental Science

Submission Deadline: February 15, [redacted]

Please use the link below to complete and submit your reference for the applicant:

https://apply.sgs.utoronto.ca/refere[redacted]

If clicking on the link doesn't work, try to copy and paste the entire link into your browser.

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Sincerely,

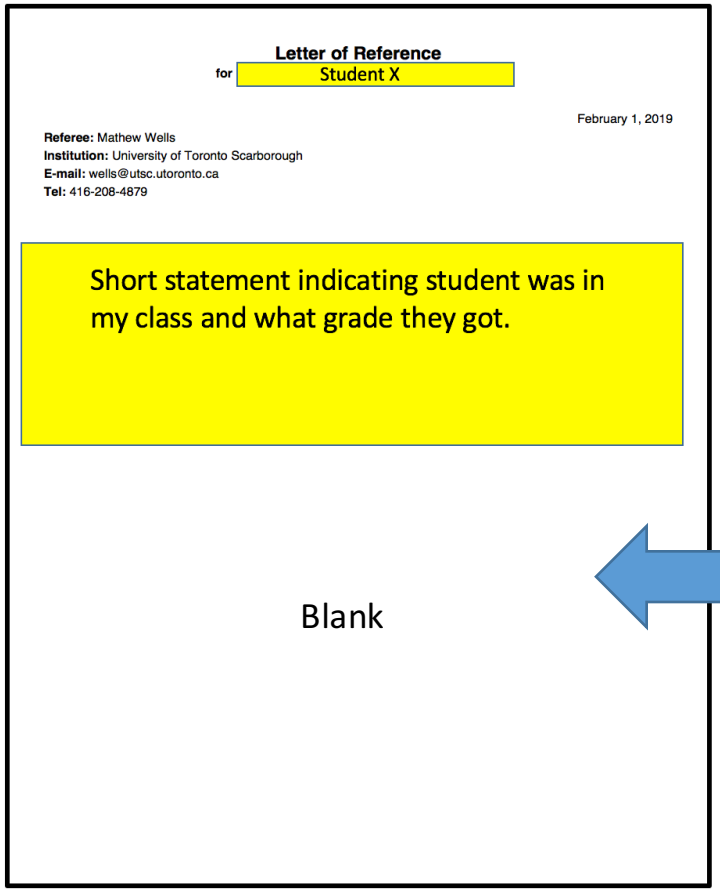
School of Graduate Studies
University of Toronto

*****
Please do not reply to this e-mail if you need a response as it is not actively monitored. For assistance, please contact support@sgs.utoronto.ca.

Usually references are due by February, i.e. after student has submitted .

When writing I can usually see what student has submitted full application.

- What reference letter to SGS then looks like..



Referee needs to know student well to be able to write 1 to 1.5 pages about them!

Or student could provide enough information that I could write all this

Many grad school programs also require referee to rank prospective students.

- Are they in top 2%, 5%, 10%, 20% …. In various categories.
- Then referee has to say what cohort they are comparing to
- It looks much stronger if letter also give examples of why they are ranking students in top cohort.
- If they can't give a reason, admission committee tends to disregard numbers.

Who should you ask for a reference?

- Usually need three ACADEMIC references, ideally professors who can gauge how you would do in a graduate program. They should be able to say you would be great at research, have already demonstrated some independence of thought and that they would admit you into their grad program

Don't ask for a reference from

- A TA in a course
- A relative or friend
- A co-worker

How should you ask for a reference?

- Ask well in advance of deadline – definitely not one week before deadline. It takes time to write a strong and substantive letter
- Be specific – what program are you planning on applying to and what are deadlines?
- If referee agrees, then provide information – CV, transcript and letter student will provide to grad school application.
- It is helpful it student spells out the key points that should be communicated in reference letter

What is the referee writing?

- Usually they are writing to their peers, and saying explicitly how the student would do in grad school.
- Academia is a small world, so everyone has to be honest and realistic about whether a students is amazing or just average.
- Letters from prestigious professors often carry more weight than junior professors that are not well known. Particularly on statements like “Student X is in top 2% of all students I have ever taught in last 20 years..”
- In some cases student doesn’t have great grades, but referee can write a strong letter with detailed compelling examples explaining why the applicant would be good at graduate school.

- What a reference letter from a supervisor needs to include ….

https://csw.arizona.edu/sites/default/files/avoiding_gender_bias_in_letter_of_reference_writing.pdf

Adjectives to avoid:	Adjectives to include:
caring	successful
compassionate	excellent
hard-working	accomplished
conscientious	outstanding
dependable	skilled
diligent	knowlegeable
dedicated	insightful
tactful	resourceful
interpersonal	confident
warm	ambitious
helpful	independent
	intellectual

Need to be able to have a reference writer how can say things that you have been *successful, excellent, skilled, insightful* et cetera at.

From - https://katherine-glover.com/applying-to-grad-school/

- **Applying to Grad School**
- I've advised my research and classroom students on their grad school applications, and found myself giving basically the same response. The most common request? Advice on writing the "Statement of Purpose," and examples in science disciplines. Here are the resources I tend to share:
- **"So you want to go to grad school? Nail the inquiry email."**
  Great advice from Prof. Jacquelyn Gill on how to prepare before the application season.
- Female Science Professor's **"Writing to Me"**
  Insight on how inquiry emails come across to professors – and how she tends to respond.
- Dreaming of Chickens blog – **"On That Personal Statement"**
  Another faculty perspective on how SOPs might be read, spurred by recent conversations on social media and the question – how personal is too personal?
- **"Writing the Statement of Purpose"**
  advice from UC Berkeley Graduate Division
- Catherine Sledge Moore (Psychology) – **Application Essays advice**, and link to her own SOP
- The Unlikely Grad (Geochemistry) – **"A Winning (?) SOP"**

Any questions so far on who to ask for a reference letter?

What should statement of purpose say?

- This is usually a one page letter, and it often overlooked in importance in SGS applications.
- You need to say why you are applying for graduate school and what your career objectives are.
- This will take a while to write and you should go through several drafts before finishing it.
- There is lots of advice on Canadian and US websites on how to write these.
- Try really hard to avoid clichés, especially starting with “Ever since I was a child I have loved the environment…”
- It is your opportunity to show how well you can write, which is an important part of grad school.

The M.Env.Sc program at UTSC specifically requests two types of supporting documents

Departmental Academic Interest Form - for additional background, academic and MEnvSc program information

Departmental Interest Summary Form – which is the equivalent to the application cover letter. This is limited to 1 page. We specifically ask:

> *"Please, tell us why you wish to pursue training in Environmental Science based on your personal, professional and educational experiences. Where do you hope this degree will take you? If you are applying to a particular field of study, please elaborate on why. Also please discuss your motivation towards the internship or research enrollment option."*

This "Departmental Interest Summary Form" is essentially the same as what is often called a "Statement of Purpose" letter that is used in almost all graduate school applications

Most importantly, for a research masters degree you are usually most interested in the research supervisor and the research program, rather than applying to just the institution. This means you must have got in touch with them before hand.

Your application letter or Statement of Purpose letter should be specific and say what about the research program and research courses you are most interested in, what preparation you have for that research, and what your long-term goals are.

- UTSC's AA&CC and the Writing Centre has good advice on writing statement
- https://utsc.utoronto.ca/news-events/events/getting-started-personal-statement

- Watch video (3:30 MINUTES) https://www.youtube.com/watch?v=_H_QnPIYPIU

- Make an appointment to AA&CC
- https://www.utsc.utoronto.ca/aacc/contact

- UTSC Writing Centre website
- https://utsc.utoronto.ca/twc/

https://ctl.yale.edu/sites/default/files/basic-page-supplementary-materials-files/writing_personal_statements_for_graduate_school.pdf

WRITING PERSONAL STATEMENTS FOR GRADUATE SCHOOL

The graduate school personal statement is your opportunity to convey what you might be like as a future colleague and professional within your discipline. It is your chance to articulate the passion that will make you a motivated scholar and teacher, as well as your familiarity with the field and your potential research interests. An interesting, well-written, and polished personal statement represents the confident, intelligent, and grounded professional you will become.

Initial Preparation:

- Thoroughly research the schools and departments to which you plan to apply. Other than business, law, medical or other professional schools, most graduate programs enroll twenty or fewer students each year. Graduate admissions committees want to know why you are the best fit for their program/department. Each department is unique, and your statement should reflect your knowledge of the department's research strengths.
- Clarify your motivations and goals for pursuing a graduate degree. Keep in mind that graduate school prepares you for a specific profession: why do you want to join that profession?
- Talk to current graduate students and professors about the environment and expectations of the field you want to enter. Consider how your skills and experience have prepared you for success in this field.
- Read recent journal articles and other scholarship in the field that is close to your scholarly interests.

Goals for the Personal Statement:

- Demonstrate your intellectual passion for the field—what thrills or excites you about the research you've done or you would like to do?
- Provide concrete examples of your skills, interests, and previous research in the field, and how they might inform the research you would like to pursue in your graduate studies.
- Show that you are familiar with the procedures and expectations of scholarship and professional training in your field, and that you have the character, qualities and experience to thrive. Use the professional language of the field to describe your scholarly interests.
- Graduate school is extremely challenging—intellectually, emotionally, and financially. Convey that you have the energy and perseverance to succeed through examples of challenges you've faced and how you've overcome them.

What to avoid:

- Cliché: Statements like, "I've always wanted to help people," "I have always loved reading novels," etc., are both overused and uninteresting to graduate admissions committees. Using vague, clichéd phrases to explain your interest in the field undermines the seriousness and professionalism of the scholarly endeavor. Instead, try to provide a specific anecdote that illustrates what sparked and sustains your passion.
- Personal statements can have moments of humor that reflect your character/personality, but the primary purpose isn't to show how clever you are in composing the essay; it's to present yourself as an interesting and potentially inspiring future colleague. For example, writing a humorous piece about how you want to study psychology because you were inspired by watching *The Sopranos* (which might be acceptable for an undergraduate personal statement) wouldn't be useful for the graduate school application.
- Lists of accomplishments: This is what the rest of the application is for. Instead, focus on just one or two experiences that illustrate the qualities and interests that will make you a good potential scholar.

Drafting the Personal Statement

Questions to prompt your writing:

- What event or experience inspired your decision to seriously pursue studies in your field?
- What research, scholarship, or experience in the last few years reflects your future scholarly interests? How does it show your knowledge, skills, and passion about the field?
- What specific line of inquiry or areas of research would you like to pursue as a graduate student/future scholar? Why are those issues of particular interest to you? Why might they be important to the field as a whole?
- What experience illustrates your ability to meet the rigors and challenges of graduate study?

General suggestions for organization:

- Begin with a story: Use the first paragraph to tell a narrative that illustrates your intellectual passion and personal commitment to the field.
- Use the middle section of your essay to focus on your intellectual experience with the field and your goals for future research.
- Conclude with why you would excel in your studies, especially at the particular institution to which you are applying.

Revising and polishing your statement:

- After writing an initial draft, set up an appointment with a Residential College Writing Tutor to discuss the content and organization of the draft.
- Revise the draft and then arrange a meeting with a professor/mentor in the field to look over your statement and offer suggestions.
- Revise your draft again and meet with a Residential College Writing Tutor to polish the essay in terms of structure, style, and grammar.

Other things to keep in mind:

- Tailor each statement to the question asked by each graduate school.
- Tailor each statement to reflect your knowledge of that particular program and professors. For example, is there an archive at the university that you would like to take advantage of? Are there particular laboratories or specialties among the graduate faculty that would give you an opportunity to pursue your interests?

Any questions so far on statement of purpose letter?

I am a 2nd or 3rd year student, how do I get a strong academic mentor?

Being a student in a large class does not generally get you in contact with a professor who could advise you on graduate school, but you can do the following.

- Attend office hours and ask intelligent questions that show you are following lectures and reading textbooks.
- Take a work-study placement in a professor's lab (https://www.utsc.utoronto.ca/aacc/work-study-program-0)
- Take a small class where you actually interact with professor, such as a field course. DPES offers 4 field class, but think about **Ontario Universities Program in Field Biology** also http://www.oupfb.ca/ which could be used for credit.
- Take a reading course – such as https://utsc.calendar.utoronto.ca/course/EESC24H3
- Then take a research course – such as D09 and D10 https://utsc.calendar.utoronto.ca/course/EESD09H3

- Students can also attend research seminars to see what state-of-the-art research looks like.
- With COVID, many universities now have these online – look on Twitter for examples
- https://docs.google.com/forms/d/e/1FAIpQLSc4gjrn7ibyxzaVmnZjG1plnfPlPSgwaugqGyakTjD3tDb1ew/viewform
- https://cgu-ugc.ca/online-seminars-2020/
- I am quite involved in Physics Department seminars and Centre for Global Climate Change
- https://cgcs.physics.utoronto.ca/seminars/distinguished-lectures-series-2020-2021/
- Professor Timour Radko from Naval Postgraduate School in California will give a seminar on Tuesday, October 13th at 4:10pm using zoom link https://utoronto.zoom.us/j/86278106395
-

Other opportunities that you would then be able to do once you have become engaged in research

- In the summer, apply for a research training award, such as
- An NSERC USRA https://www.nserc-crsng.gc.ca/students-etudiants/ug-pc/usra-brpc_eng.asp
- A CGCS internship at UofT - http://www.cgcs.utoronto.ca/education/intern.htm
- or a UTSC – UTEA awards - https://www.utsc.utoronto.ca/research/university-toronto-excellence-award

- All Canadian and US universities have programs like this, which are an excellent way to gain exposure to a laboratory setting. Sometimes there are also specific summer undergraduate courses.

Students can also attend conferences

- https://www.utsc.utoronto.ca/studentaffairs/academic-travel-fund
- Ask about volunteering at conferences, many meetings have mechanisms to subsidize student attendance at meetings

- Could also write up a small research project in UTSC journal https://jps.library.utoronto.ca/index.php/jns/about/submissions

- The gold standard would be to present research at a conference or co-author a research paper. Such a student would be very competitive in any graduate school admissions.

Think big! There are more graduate schools than just in Canada which will award scholarships to string students

- English is the global language of science, so if you have a strong background you could get scholarship to go anywhere.
- The key to admission to a top school would be to have demonstrated research experience, i.e. co-authored a research paper or presentation.
- Specific places of interest could be US, Australia and New Zealand, UK, Germany or France, which are where best research universities are.
- For instance the top US research institutions are competing for best talent, and fly prospective students in to interview. Harvard, MIT, Caltech, Princeton, Stanford and Yale take the best from around world and top students would decide which lab they might join.

Where do I find out more?

- Aside from talking with a mentor and graduate students, there is a lot of information on social media, particularly https://twitter.com

- i.e. https://twitter.com/search?q=master%20%20studentship&src=typed_query&f=live

- Many professors post information and advice about graduate school applications, potential awards and specific projects that they have funding for.
- For instance I follow colleagues' feeds from North America, Europe, Asia and Australia, so hear when they have opportunities and loosely keep up with their research directions. This is a way to get a sense for what people are doing
- My feed = https://twitter.com/EFD_Toronto

Other resources

- https://www.utm.utoronto.ca/careers/sites/files/careers/public/shared/pdf/Mastering%20the%20Personal%20Statement%20Transcript.pdf
- https://www.mcgill.ca/caps/students/gradschool/statements
- https://career.berkeley.edu/Grad/GradStatement