



## Applying to Graduate School in the US

Students in GCOE and Mewbourne College  
University of Oklahoma  
Norman

By

Rachel L. Bennett  
[rachel.l.bennett-1@ou.edu](mailto:rachel.l.bennett-1@ou.edu)

Swapneel S. Danayat  
[sdanayat@ou.edu](mailto:sdanayat@ou.edu)

Kevwe Andrew Ejenakevwe  
[kevwe.ejenakevwe@ou.edu](mailto:kevwe.ejenakevwe@ou.edu)

Farrokh Mistree  
[farrokh.Mistree@ou.edu](mailto:farrokh.Mistree@ou.edu)

## Recording

[https://mymedia.ou.edu/media/Farrokh%20Mistree's%20Personal%20Meeting%20Room/1\\_br2eo7o7](https://mymedia.ou.edu/media/Farrokh%20Mistree's%20Personal%20Meeting%20Room/1_br2eo7o7)

## Topics

1. Why pursue a graduate degree?
2. How do I put together a competitive application?
  - a. How do I fund my graduate studies?
  - b. MS or PhD, what to study, where to apply?
  - c. What is involved in putting together a competitive application? When do I start? Tips for writing a Statement of Purpose?
3. Who can I contact in the GSC to review my application?



**Kevwe Andrew Ejenakevwe**  
**Building Energy Efficiency Laboratory (BEEL)**  
**kevwe.ejenakevwe@ou.edu**

**1. Academic Journey**

- Undergraduate – University of Nigeria
- Masters (University of Nigeria): Spurred by an inclination towards academia
- PhD (OU): In continuation of career aspirations to be an academic

**3. What Makes Me Happy**

- Tackling and solving complex problems in a smart way that can be replicated/ automated
- Being able to communicate my ideas or understanding in an effective way
- Providing mentorship to others
- Reviewing other's works and being able to give useful feedbacks

**2. Lessons from Academic Journey**

- How to ask questions/what questions to ask
- Resilience and how to stay motivated
- How to identify and articulate questions worthy of investigation
- How to systematically conduct investigation.

**4. Tips for Embarking on Journey**

- Build good relationships with the right persons
- Talk to people (Current graduate students, former graduate students, and professors)
- Read papers, attend seminars, learn a thing or two about what others are doing
- Be involved in some type of community
- Go at your pace and never compare yourself with others



# Swapneel S Danayat

## Micro/Nano Heat Transfer Laboratory

sdanayat@ou.edu

### 1. Academic Journey

- Undergraduate – Savitribai Phule Pune University (India)
- Masters – Arizona State University (Thesis: 3D printed heat exchanger)
- PhD – University of Oklahoma (Thermally conductive polymer composites)

### 3. What Makes Me Happy

- Learning from failures and converting them into better results
- Brainstorming new ideas with peers
- Teaching and interacting with students as a GTA

### 2. Motivation and Lessons from Academic Journey

- Master's thesis led towards PhD research
- Exposure to previously unknown opportunities
- Formulate and solve novel practical problems
- Learn from your experiences.
- People skills are as important as technical skills

### 4. Tips for Embarking on Journey

- Recognize your own motivations and proceed accordingly
- Be aware of all available opportunities.
- Socialize and make connections with people from different backgrounds



## Why Graduate School? (1/2)

[close](#) or Esc Key

### Earnings and unemployment rates by educational attainment, 2021

| Educational attainment          | Median usual weekly earnings | Unemployment rate |
|---------------------------------|------------------------------|-------------------|
| Doctoral degree                 | \$1,909                      | 1.5%              |
| Professional degree             | 1,924                        | 1.8               |
| Master's degree                 | 1,574                        | 2.6               |
| Bachelor's degree               | 1,334                        | 3.5               |
| Associate's degree              | 963                          | 4.6               |
| Some college, no degree         | 899                          | 5.5               |
| High school diploma             | 809                          | 6.2               |
| Less than a high school diploma | 626                          | 8.3               |

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.  
Source: U.S. Bureau of Labor Statistics, Current Population Survey.

### Delta \$

PhD/BS \$29,900/yr  
PhD/MS \$17,420/yr  
MS/BS \$12,480/yr

### Unemployment

PhD 1.5%  
MS 1.8%  
BS 2.6%

**Bureau of Labor Statistics**  
<https://www.bls.gov/career-outlook/2022/data-on-display/education-pays.htm>



# Why Graduate School? (2/2)

*Education Pays*  
U.S. Bureau of Labor Statistics  
February 2019

Median Weekly Income

Unemployment Rate

|         |                         |      |
|---------|-------------------------|------|
| \$1,825 | PhD                     | 1.6% |
| \$1,434 | Master's Degree         | 2.1% |
| \$1,198 | Bachelor's Degree       | 2.2% |
| \$862   | Associate's Degree      | 2.8% |
| \$802   | Some College, No Degree | 3.7% |
| \$730   | High School Diploma     | 4.1% |

|          |             |              |
|----------|-------------|--------------|
| Delta \$ |             | Unemployment |
| PhD/BS   | \$32,600/yr | PhD 1.6%     |
| PhD/MS   | \$20,332/yr | MS 2.1%      |
| MS/BS    | \$12,272/yr | BS 2.2%      |



# Farrokhism

You cannot argue against or for a belief.

I share with you my strongly held beliefs that others may disagree with.

Please do talk to others and decide what is right for you.



## Thoughts for the Day

**“We are currently preparing students for jobs that don’t exist using technologies that haven’t been invented in order to solve problems we don’t even know are problems yet.”**

**Former Secretary of Education **Richard Riley****

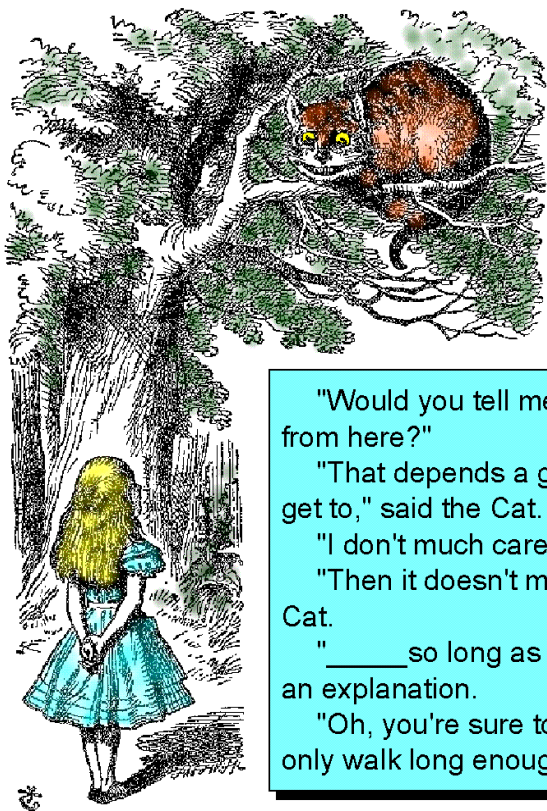
**“It is not the strongest of the species that survive, nor the most intelligent but ones most responsive to change.”**

**Charles Darwin**





# Which Program? Tool User and Tool Maker



Lewis Carroll, *Alice in Wonderland*, 1865.

"Would you tell me, please, which way I ought to go from here?"  
"That depends a good deal on where you want to get to," said the Cat.  
"I don't much care where \_\_\_\_\_" said Alice.  
"Then it doesn't matter which way you go," said the Cat.  
"\_\_\_\_\_ so long as I get *somewhere*," Alice added as an explanation.  
"Oh, you're sure to do that," said the Cat, "if you only walk long enough."

## TAKE AWAYS

1. Importance of having a goal.
2. Tool User facilitates execution
3. Tool Maker frames the problem
4. Both are valued in industry, government and academia.

## DECISION

What type of graduate program is right for me?





# Applying to Graduate School in the US

- Typically, graduate school is free for engineering students. This includes international students who qualify (GPA, GRE, SoP)
- In this talk I plan to cover
  - Minimum GPA and GRE scores, what to study, where to apply, how many places to apply, financial assistance, statement of purpose, finding a research advisor, etc.
  - What is the timeline and steps to follow to secure admission and financial support at a graduate institution in the US?



## Talking Points (1/3)

1. Does it matter what I study in graduate school?
2. How do I pay for my graduate education? Why get a PhD?
3. How many applications?
4. GPA and GRE (Q > 155 over 70%, V > 153 over 50%,  
A – ideally > 4 / 6)
5. Do your homework
  - Communicate with students of professors
    - How does professor guide students?
    - How does professor help students get jobs?
    - How does professor relate to students?
    - What are the professor's current research interests
  - Tailor make your communication with professor
6. Tailor your statement of purpose to the professor and the institution. Copy the professor's student you have communicated with
7. Focus on how you can add value to the professor's research program and what will distinguish you from others.



## Talking Points (2/3)

### 8. Timeline – Ideal Scenario

- You need to start the application process a year before you plan to join the graduate program. To start in Fall 2024, you need to start working on your application in Summer 2023
- Summer / Fall 2023 - GRE, TOEFL, identify about a dozen schools that you may apply to
- Find out about program and professors from students that are already enrolled in the graduate program
- Prepare statement of purpose – show how you can add value to the research program at the institution in general and selected professors in particular
- Plan on applying to eight schools. Three dream schools, three good schools and two back-up schools
- Apply – you have a better chance of getting admission with financial assistance the earlier you apply. No matter what is stated on the website the last date for applications to be considered is December 31, 2024
- Most invitations go out by end of February / early March with a deadline to accept / not accept of April 15



## Talking Points (3/3)

### 9. Financial Aid

- Research Assistantships – specific, knowledge, skills and interest needed
- Teaching Assistantships – specific knowledge as well as knowledge of English
- Scholarships – usually small, based on merit and sometimes other qualifications, such as country or origin, gender, community activities, etc.

#### International students

- Loans – can be hard to get for international students
- Work – restricted to work on campus for international students – jobs such as work in library, in cafeteria, in parking lot, etc. Maximum 20 hours a week. Typically, paid at a minimum hourly rate. Will not be enough to cover living and tuition



## Salient Features – Statement of Purpose

Typically, one to one and a half pages, that is, 400 to 600 words.

**Para 1** – What degree do you want and why. What do you plan to do after getting your degree.

**Para 2** – Your academic preparation for what you wish to study and your accomplishments.

**Para 3** – Your extracurricular activities and how these have shaped who you are.

**Para 4** – Particularize to the program you are applying to. Why this institution? Which professors interest you? Much of this information will come from your exploration of the web.

**Para 5** – Summary statement as to what you plan to do professionally and why this place is just right for you.



## Statement of Purpose - Some institutions require short one paragraph essays

1. Read the prompt for the essay.
2. Write the prompt for the essay in a word document or sheet of paper.
3. Reflect with a view to understanding the prompt.
4. Do a mind dump of what you could include in your essay. Could be sentences or bullet points.
5. Organize these ideas into categories that will morph into paragraphs.
6. Reality check – check if what you have in Point 5 is in agreement with your understanding of what is required (Point 3).
7. Modify where necessary.
8. Now you can start “writing” the essay by connecting the material you have put together in Point 7.
9. Review for connectivity and revise.
10. Put through grammar and spell checker. Read carefully / tweak.



## Letters to Professors – Turn Offs

- My research interests match yours therefore ...
- I have read your paper and I am interested in your work ...
- I have been to your web site ...
- You are the greatest therefore I want to work with you ...
- Your institution is great therefore admit me and give me financial support ...
- I am really interested in research, but I only want a MS ...
- To a professor who has never published in X ...  
I have been to your website and see that my research interest Y matches yours ...
- When writing to a female professor.  
Dear Sir: I have been to your website and my research interest matches yours ...
- I plan to get a MS, work in industry and then come back and get a PhD ...






# Resources


- Graduate School and You  
<http://www.cgsnet.org/graduate-school-and-you-guide-prospective-graduate-students>
- University of Oklahoma  
<http://www.ou.edu/gradweb>
- Graduate Schools on the Planet  
<http://www.gradschools.com/>
- US News and World Report  
<http://www.usnews.com/education/best-graduate-schools/>
- GRE Test  
<http://www.ets.org/gre//>
- TOEFL Test  
[http://www.ets.org/toefl?WT.ac=toeflhome\\_faq\\_121127](http://www.ets.org/toefl?WT.ac=toeflhome_faq_121127)
- NSF Graduate Research Fellowship Program <https://www.nsfgrfp.org/>



# GSC Leadership Team Academic Year 2023-24




**Roshan Sameer**  
AME  
Co-chair




**Rachel Bennett**  
ISE

**Publicity**




**Andrew Ejenakevwe**  
AME




**Avinash Nayal**  
AME


**Support**




**Anirban Mondal**  
AME




**Swapneel Danayat**  
AME




**Mayank Bhalerao**  
ISE




**Mohammad Ansari**  
AME




**Lateef Jolaoso**  
AME




**Philani Hlanze**  
AME




**Nurayn Tiamiyu**  
AME



**Sooraj Patel**  
AME




**Siavash Mandegari**  
ISE



**Luis Vazquez**  
CS

**Correspondence**

**Mentor**



**Farrokh Mistree**

**Leadership Meeting:**

**Wednesdays  
5-6 PM over  
zoom.**

Please contact Rachel Bennett ([Rachel.l.benett-1@ou.edu](mailto:Rachel.l.benett-1@ou.edu)) or Roshan Annam ([anna0003@ou.edu](mailto:anna0003@ou.edu)) for meeting invitation

*On Behalf of the GSC Leadership Team, Thank You*





## Rachel – Who can I contact in the GSC to review my application?

Roshan Sameer Annam  
Rachel L. Bennett  
Swapneel S. Danayat  
Kevwe Andrew Ejenakevwe  
Avinash Nayal  
Farrokh Mistree

[anna0003@ou.edu](mailto:anna0003@ou.edu)  
[rachel.l.bennett-1@ou.edu](mailto:rachel.l.bennett-1@ou.edu)  
[sdanayat@ou.edu](mailto:sdanayat@ou.edu)  
[kevwe.ejenakevwe@ou.edu](mailto:kevwe.ejenakevwe@ou.edu)  
[nayal1@ou.edu](mailto:nayal1@ou.edu)  
[farrokh.Mistree@ou.edu](mailto:farrokh.Mistree@ou.edu)

**Questions for clarification**



**Dialog**



© Can Stock Photo - csp8170958



# BACK UP



## What's Required for an MS? (There may be slight variations.)

- 10 courses with a thesis or 11 without. Some specific courses will be specified. If you have had equivalent courses it may be possible to replace those courses with others. Usually takes about 2 years.
- An MS thesis is equal to 2-3 courses. It provides excellent experience. You are probably expert in taking courses but may not have had much experience in doing a large project.
- If you did not get financial assistance, there are usually on-campus jobs you can get. (Work in library, cafeteria, etc.)
- Check out requirements for schools that interest you on the web.



## What's required for a PhD? (There may be slight variations)

- 90 units (30 courses) including about 10-15 courses of research. 60 units if starting with an MS. Generally about 5-6 years after BS. Some places let you go directly from BS to PhD – not advisable. But when you apply, say that you want an MS followed by a PhD.
- Usually 1-2 major examinations: qualifying exam and general examination. Then thesis defense.
- Dissertation advisor is very important – choose carefully, not just someone who can pay you.
- Check out requirements for schools that interest you on the web.