Applying for Graduate Research Fellowships

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Available Graduate Fellowships

- NSF Graduate Research Fellowship
- Hertz Foundation Fellowship
- DOE Office of Science Graduate Fellowship
- National Defense Science and Engineering Fellowship
- ...

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Some General Guidelines for Proposal Writing

Follow Directions!
- Find out what the agency wants to fund, and address your proposal to those aims
- Check off all the boxes
- Follow formatting requirements
- Get all your materials in on time

What Makes Your Application Unique?
- Your application is an advertisement for you
- Make it enjoyable to read—Say it simply

Finish Early—Get Feedback
- Have other grad students, postdocs, or faculty read your proposal
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Basic Information about the Fellowship
- 3 years of research funding (salary) $32,000 per year
- 3 years of tuition offset
- Access to super-computing facilities
- Access to NSF GROW program (Graduate Research Opportunities Worldwide)
- Fellowship Website: www.nsfgrfp.org

Who is Eligible?
- U.S. Citizens, Nationals, and Permanent Residents
- Graduating Seniors
- Graduate students in their first year or in the Fall term of their second year

Why Apply?
- More Time for Research
- Looks Good on the Resume: Research Positions in Academia, Industry, Education
- Honorable Mentions during Review Process
- Good Practice

Deadline: October 30, 2014
What You Need to Submit

- Basic Personal Information
- Transcripts
- 3 Letters of Recommendation (up to 5)
- Essays
  - Personal, Relevant Background & Future Goals Statement
  - Graduate Research Plan Statement
- Choice of Research Institution
Letters of Recommendation

- Choose letter writers who know you
- Give your letter writers lots of warning (1 month at least)
- Show your letter writers your application materials
- Try to choose one or more people from NCSU
  - If undergrad applying elsewhere, letter writer from that university is helpful.
- Any letter writer who can comment on past research experience is a plus.
Essay: Graduate Research Plan Statement

- I have an intended research mentor/ am working on a project already.
  - Write about your project!
  - What is novel/new? Why is it important?
- I’m not sure what I want to work on yet.
  - Identify a research area that interests you
  - Write about problem(s) in that area that seem interesting to you
- Be ambitious but realistic
- Research your subject area and write correctly about it
- Make sure your research project is appropriate for your intended institution

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Essay: Personal, Relevant Background & Future Goals Statement

- Describe your personal, educational and/or professional experiences that motivate your decision to pursue advanced study.
- Include examples of research and/or professional activities in which you have participated.
- Describe the contributions to **advancing knowledge** in STEM fields and the potential for **broader societal impacts**.
- Include future plans to contribute to broader impacts.
- Why are you excited by your research area?
What Counts As Previous Research Experience?

- REU, REG experiences
- Senior Thesis
- Final Project in Course
- Attending Research Seminars
- Keeping up with Research Trends in Mathematics
- If you don’t have formal research experience, talk about something that shows your initiative.
- Don’t leave this blank!
Some General Advice for the Essays

- Integrate essays to create singular theme, link the content together
- Display your passion and motivation in the essays
- Mention what sets you apart from a typical applicant - be unique!
- Keep essays clear, simple to read, scientifically sound, and professional
- Thoroughly address both Intellectual Merit and Broader Impacts
How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields?

How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of prior work.)

To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts?

How well conceived and organized is the proposed activity?

Is there sufficient access to resources?
Review Criterion: Broader Impacts

- How well does the activity advance discovery and understanding while promoting teaching, training, and learning?
- How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)?
- To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships?
- Will the results be disseminated broadly to enhance scientific and technological understanding?
- What may be the benefits of the proposed activity to society?
Getting a graduate research fellowship can have a huge positive impact on your life

Start working on applying for fellowships now

Choose topics for your essays carefully, and integrate them

Contact your letter writers early, use them to get advice on your essays

NSF Graduate Research Fellowship Website: http://www.nsfgrfp.org/

Some faculty you could contact:
Mansoor Haider, Patricia Hersh, Amassa Fauntleroy, Michael Shearer, Seth Sullivant