Graduate School: Taking The Next Steps

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What Program Is For Me?

**Professional Masters’ and Doctoral**
- M.B.A
- M.S.W.
- M.D.
- J.D.
- Psy.D.
- Ed.D
- PharmD

**Research Masters’ and Doctoral**
- M.A.
- M.S.
- M.D./Ph.D.
- Ph.D.

Why Graduate School?

- To become an authority on a subject, immersion in a subject
- For personal growth/challenge/achievement
- It is required to enter certain fields/occupations
- It is required to advance in certain fields/occupations
- Greater credibility
- Lifestyle and values
Why Research Based Graduate Degree?

• To become an authority on a subject, immersion in a subject
• For personal growth/challenge/achievement
• It is required to enter certain fields/occupations
• It is required to advance in certain fields/occupations
• Knowledge Producer vs Knowledge Consumer
  – Contribute to your field of study
• Greater credibility
• Lifestyle and values

Preparing Yourself

• Rigorous courses from a highly selective university,
• High overall GPA and an even higher, in-major, GPA
• Strong letters of recommendation
• A well-written personal statement
  • An understanding of the university, department and specific faculty
• Engagement beyond the classroom (research, study abroad, internships, service learning, leadership involvement)
• GRE Scores (take the GRE even if grad programs do not require it)

Preparing Yourself

• Participate in Undergraduate Research/Research internships
  – community based research
  – research abroad - try and turn your study abroad into a research abroad experience
• Publish a paper
• Identify a short list of schools (at least 6 schools/programs)
• Visit campuses and meet with relevant faculty
  or
• Contact faculty via e-mail and communicate your interest, and explore if the program will be a good fit for you.
Preparing Yourself

- Leadership Record
  - Student Organizations
  - University Committees or Sub Committees
  - National Organizations
- Service Record
  - Volunteer Organizations
- Work Experience
  - Teaching
  - Tutoring
  - Internships

Enhance Your Chances Of Being Accepted

- Talk to graduate students and, if possible, alumni
- Consider other factors
  - Geography
  - Cost of Living
  - Benefits
- Ask about:
  - Funding opportunities
  - Average time to degree
  - Navigating the graduate program

Enhance Your Chances Of Being Accepted

- Identify a short list of schools (at least 6 schools/programs)
- Visit campuses and meet with relevant faculty
  or
- Contact faculty via e-mail and communicate your interest, and explore if the program will be a good fit for you.
- Be well prepared and organized for your communication with the faculty
- Be professional and considerate (like you, faculty too are busy with research, teaching, publishing, editing, writing letters of recommendation for students and colleagues, family life, and just being human)
Enhance Your Chances Of Being Accepted

• Do not contact a faculty if you are not familiar with their research and how it connects with yours – become familiar with their current research article and their seminal publication
  – Do not ask questions that you can look up on the program website
• Become familiar with BOTH, the Graduate Program and Graduate School website
  – Follow the graduate program instructions
  – Pay attention to details

Enhance Your Chances Of Being Accepted

• Provide strong letters of recommendation
  – Ask faculty who know of your research and academic work/strengths
  – Provide necessary materials – envelopes, stamps, etc.
  – Ask EARLY!
  – Provide a statement of purpose
  – Thank your recommenders

Financial Support for Graduate Studies

• Types of Financial Support
  – Teaching Assistantship (TA)
  – Research Assistantship (RA)
  – Project Assistantship (PA)
  – Fellowships
  – Grants
  – Loans
Financial Support for Graduate Studies

- Locate Funding for Graduate Studies
  - Complete the FAFSA (even if the institution does not require it – helps get some types of federal funding)
  - Graduate Department/Program
  - Faculty
  - Library
  - Web sites
  - Newsletters/Professional Journals
  - Financial Aid Office
  - Student Job Center

Financial Support for Graduate Studies

- Funding Packages
  - What is a Funding Package?
  - How to Assess a Funding Package?
  - Dollar Amount
  - Career Goals/Experience
  - Cost of Living
  - Benefits – Health Insurance, Travel Allowance

Application Timeline
Applying to Graduate Fellowships

Audra K. Hernandez, PhD

Federal Granting Agencies

- U.S. Air Force Research Office
- U.S. Army Research Office
- Catalog of Federal Domestic Assistance
- Centers for Disease Control and Prevention
- Congressionally Directed Medical Research Program
- Defense Advanced Research Projects Agency
- U.S. Environmental Protection Agency
- FedBizOpps.gov
- Federal Register
- Grants.gov
- Health & Human Services
- National Aeronautics and Space Administration
- National Endowment for the Arts
- National Endowment for the Humanities
- National Institutes of Health
- NIH Parent Announcements
- NIH Basic Behavioral and Social Sciences
- National Oceanic and Atmospheric Administration
- National Institute of Standards and Technology
- Individual NOAA Offices
- National Science Foundation
- Office of Naval Research
- U.S. Department of Agriculture
- U.S. Department of Education
- U.S. Department of Energy
- Office of Science, DOE
- National Energy Technology Lab
- Office of Nuclear Energy
- Office of Energy Efficiency and Renewable Energy
- Advanced Research Projects Agency
- U.S. Department of Homeland Security
- U.S. Department of Housing and Urban Development

Fellowships Timeline

- June: Find out as much information as you can about the program. Compile a detailed list of due dates and required materials.
- July: Start reading the literature and combing through the discussion/conclusions sections for potential ‘knowledge gaps’ you could propose to ‘fill-in’ with your Research Plan Statement. Meet with your current research adviser, and/or reach out to potential research advisers, to discuss potential topics for your proposal.
- August: Outline & draft Graduate Research Plan Statement, contact recommendation letter writers and plan to meet with each one.
- September: Outline & draft Personal, Relevant Background, & Future Goals Statement, send to reference letter writers for review/editing
- October: Revise/edit statements to fit within page limits, check in with reference letter writers
- October/November: Submit a day early!
- Waiting Period!
- March/April: Hear back from funding agencies!

www.malloryladd.com
Develop a Plan

• Follow direction spelled out in the Request for Proposals!
  – Number of statements
  – Page limits
  – Fonts and page formats
  – Required signatures
  – Due dates!!! Plan on submitting one day early!
  – GRE scores?
• Know your audience
  – Write in plain English and avoid jargon.
• Write to the Evaluation Criteria
  – NSF: https://www.nsfgrfp.org/applicants/application_components/merit_review_criteria
  – Ford Fellowship: http://sites.nationalacademies.org/PGA/FordFellowships/PGA_047958#criteria

Identify the Need

• What problem(s) are you trying to solve?
• What gaps are you trying to fill?
  – Ask: what questions/areas need to be filled?
  – What will you do that’s not being done?
  – Distinguish between real and perceived goals (wants versus needs)
  – A real need, when done, will solve an identified problem.
  – Gather hard data to support your claims (References - 3 years of prior research)
• Build a Solid Foundation
  – Grantors want assurance that your approach to a problem is sound and backed by research
  – How has your problem been handled in the past? Why is that not enough? What is left unsolved?
  – Cite!
• Define Your Target Population
  – Narrow or broad?

Research Proposal - Goals and Objectives

• Create a Vision

• Goals
  – Broad statements in service to your vision
  – The long term outcome or impact your project is striving to achieve
  – S.M.A.R.T Goals
    • Specific – 5 “Ws”
    • Measurable - can you track progress
    • Attainable - is the goal reasonable
      – How will you track your progress towards the goal?
      – Grantors are interested in outcomes!
    • Process Evaluation: how you completed or implemented your plan
    • Outcome Evaluation: measures the impact of your program on the problem (before versus after)
    » Realist(s)/relevant – will it meet the needs of your vision?
    » Time-bound
Objectives

- Objectives
  - Actual steps you will take to make progress to your goal
  - Multiple objectives may be needed to reach your goal

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
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<tbody>
<tr>
<td>Score a touchdown in football</td>
<td>4 plays to get 10 yards (1st down)</td>
</tr>
<tr>
<td>Run through all bases in baseball</td>
<td>Get on base, steal a base, sacrifice a fly</td>
</tr>
<tr>
<td>Understand the genetic relationships</td>
<td>Collect individual specimens, DNA</td>
</tr>
<tr>
<td>across the geographic range of species X</td>
<td>sequencing and analysis</td>
</tr>
</tbody>
</table>

Corey Welch, Iowa

Submitting proposal

- Proofread and get feedback
  - Plan on multiple rounds of editing!
- Learn to navigate online submission sites early (e.g., Fastlane & grants.gov)
- Plan on submitting early!

Proposal Personal Statement

- Personal Statement (~1.25 pages). This is where you tell your unique story of either how you became interested in science, what makes you special, and/or any unique perspective you bring to science. What obstacles have you overcome? How do you add diversity to your field? (NSF: Broader Impacts)
- Relevant Background (~1.25 pages). Describe your research experience and explain how that has prepared you for success in graduate school and beyond. (Intellectual Merit, highlight Broader Impacts of your research experience)
- Future Goals (~0.5 pages). This is where you tie your personal background and scientific background into one cohesive vision for the future.
Proposal Research Statement

- Intellectual Merit - Introduction: Introduce the scientific problem and its impact on science (Review Criteria 1)
- Broader Impacts - Introduction: Demonstrate the problem's impact on society (Review Criteria 1)
- Intellectual Merit - Research Plan
  - What is the creative part of your approach? (Plan)
  - Show the major steps that need to be accomplished (Goal & Objectives)
  - Have you thought of alternatives for hard or crucial steps?
  - What skills do you have to make this plan successful?
- Broader Impacts - Research Plan: Paragraph to address how this research impacts Review Criteria 2-5.
- Conclusion: end with several sentences summarizing your project.

Letters of Recommendation - General

- Provide Supporting Materials
  - A cover sheet with your name, address, phone, and email information, purpose of the recommendation (graduate school or fellowship application)
  - A copy of your personal statement or proposal
  - A list of course(s) you had with this person, grade, and semester and any special projects you did
  - Your overall GPA and unofficial copy of transcript
  - The due date, the address (email?) where the letter is to be sent
  - If there are special requirements (extra forms?), provide this information.

Personal Statements - General

- Why are you fascinated by your research area?
- When did you become interested in your research area, and what have you learned about it so far?
- How have you learned about your research area; classes, research experience, work, seminars, reading, etc?
- If you have work or research experience, what did you learn (specific skills acquired)?
- What is unique and distinctive about you and/or your life story? What makes you, you?
- What are some specific examples of your leadership skills? Have you had to work on a team before?
- Are there any gaps, discrepancies, or blemishes in your academic record?
- Have you had to overcome any unique obstacles or hardships (economic, familial, physical, etc)?
- What personal characteristics would others describe you as having (integrity, compassion, persistence, etc)? How have you demonstrated these characteristics?
- What are your personal and individual strengths? What are your weaknesses and how are you overcoming them?
- How has scientific research helped you better understand society, the environment, etc?
- What are your career goals? How will this fellowship help you achieve those goals?
What’s The Difference?

<table>
<thead>
<tr>
<th>Personal Statement</th>
<th>Statement of Purpose</th>
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<tbody>
<tr>
<td>• Present a more complete picture of who you are as a person – tell your story</td>
<td></td>
</tr>
<tr>
<td>• What's unique or distinctive about you? How did your world view develop</td>
<td></td>
</tr>
</tbody>
</table>
  - Your role models or major (social, economic, cultural) influenced you, your identity |
  - Your experiences |
  - What interests you about your field |
  - What academic and research experiences have been influential in college |
| • Sharper focus than personal statement |
| • Clarity and strength of purpose – detailed reasons - in applying to a specific program |
| • Provide information about particular classes you want to take, professors whose work aligns with your research goals |
| • Provide information on your skills and preparedness for the program – academic and research |
| • Demonstrate that you understand the program and the institution |

Characteristics of Strong Essays - General

- Really research the graduate program and faculty
  • Program is more important than Institution
- Demonstrate good writing skills:
  • No spelling or grammatical errors
  • Have editors
    - Campus Writing Center
    - Faculty member – your recommenders
- Write a strong template – write to our reach/dream program
  • Customize
  - Less is More, More is too Long
  - Be True to Yourself and Your Career/Life Goals
    • Looking for good fit, not just “selling” yourself

Advice and Successful Examples

- Mallory Ladd’s Site:
- Alex Lang’s Site:
- thegradcafe.com
Best Wishes