



UNIVERSITY OF  
ARKANSAS



## NSF GRADUATE RESEARCH FELLOWSHIP

*3 May, 2018* | Office of Nationally Competitive Awards

DR. MAGDA EL-SHENAWEE, PROFESSOR OF ELECTRICAL ENGINEERING



- Independent federal agency created in 1950
- Mission
  - To promote the progress of science
  - To advance the national health, prosperity, and welfare
  - To secure the national defense
- Funds ~20% of all federally supported basic research conducted by America's colleges and universities



- To select, recognize, and financially **support individuals** who have demonstrated the potential to be high achieving scientists and engineers, early in their careers.
- To **broaden participation** in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, and veterans.
- Outcome: Recruit and retain these individuals in the U.S. STEM workforce.

# NSF Graduate Research Fellowships



- Five Year Awards - \$138,000
- Three years of financial support
  - \$34,000 stipend per year
  - \$12,000 educational allowance to institution
- Professional Development Opportunities:
  - GROW - International Research
  - GRIP - Internships
- Career-life balance initiative (family leave)
- FASED individuals with disabilities
- Supercomputer access: XSEDE



- Awarded to individuals
- Flexible: choice of project, advisor, and program
- Portable: Any accredited U.S. institution
  - MS, MS and PhD, PhD
- No service requirement



- Provides the following information:
  - Deadlines
  - Program description
  - Award information
  - Eligibility requirements
  - Application preparation
  - Submissions instructions
  - Application review criteria
- Solicitation for this year's competition should be available on the NSF GRFP website this summer



- Chemistry
- Computer & Information Science/ Engineering
- Engineering
- Geosciences
- Life Sciences
- Materials Research
- Mathematical Sciences
- Physics and Astronomy
- Psychology
- Social Sciences
- STEM Education



- U.S. Citizens and permanent residents
- Early-career: undergrad and grad students
- Pursuing research-based MS or PhD
- Science and engineering
- Enrolled in accredited institution in U.S. by Fall

## Academic levels

1. Seniors or baccalaureates with no graduate study yet
2. First-year graduate students
3. Second-year graduate students ( $\leq$  12 months of graduate study by August)
4.  $>$  12 months of graduate study, with interruption in graduate study of 2+ years (can have MS degree)





- New eligibility rules:
- Level 1: Seniors/baccalaureates: no graduate study
- Level 2: First-year graduate students
- Level 3: Second-year graduate students ( $\leq 12$  months of grad study by August 1)
- Level 4:  $>12$  months grad study with an interruption in grad study of 2+ years

**Only once in  
grad school!**

# GRFP Application Timeline



**Late October**

**Applications Due**

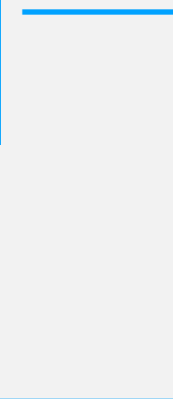


**Early November**

**Reference Letters  
Due**



**APPLY to Graduate  
Schools!**



**Recipients  
Announced**



**Acceptance of Award  
and Declaration of  
Tenure/Reserve**



**Fellowship Year  
Begins**

**Late March/Early April**

**May 1**

**June 1 or Sept. 1**

# GRFP Deadlines



- October 22, 2018
  - Life Sciences, Geosciences
- October 23, 2018
  - Computer and Information Science and Engineering, Engineering, Materials Research
- October 25, 2018
  - Psychology, Social Sciences, STEM Education and Learning
- October 26, 2018
  - Chemistry, Mathematical Sciences, Physics, and Astronomy
- Reference letters: November 1, 2018, 5:00pm ET



- Complete Application Package:
  - **Personal, Relevant Background, and Future Goals Statement** (3 pages)
  - Graduate **Research Statement** (2 pages)
  - **Transcripts** (uploaded electronically)
  - **Three** letters of reference



## Statement 1-Personal, Relevant Background, and Future Goals (3 pages):

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 impact.

## Statement 2-Graduate Research Plan (2 pages):

Present an original research topic that you would like to pursue in graduate school. Describe the research idea and your general approach. Address the potential of the research to **advance knowledge** and understanding within science as well as the potential for **broader impacts** on society.



# Application Review Process

- Applications are reviewed by panels of disciplinary and interdisciplinary scientists and engineers
- Applications are assigned to panels based on the applicant's chosen Primary Field(s) of Study and the discipline(s) represented
- Applicants are advised to select the Primary Field of Study that is most closely aligned with the proposed graduate program of study
- **Holistic evaluation:** a flexible, individualized way of assessing an applicant's interests and competencies by which balanced consideration is given to experiences, attributes, and academic achievements and, when considered in combination, how the applicant has demonstrated potential for significant achievements in science and engineering



- Two National Science Board-approved criteria:
  - Intellectual Merit
  - Broader Impacts



- How important is the proposed activity to advancing knowledge within its own field or across different fields?

**AND**

- How well does the proposed activity benefit society or advance desired societal outcomes?
- Separate sections for Intellectual Merit and Broader Impacts; address in both statements





## Intellectual Merit Assessment:

- Academic performance: grades, courses, awards, etc.
- Graduate Research plan
- Research/professional experience
- Reference letters

## Broader Impacts Assessment:

- Prior accomplishments and future plans
- Individual experiences
- Potential benefit(s) to society
- Community outreach
- Reference letters



- Start early
- Read Solicitation, and read it again
- Read NSF GRFP website
  
- Select and confirm reference letter writers
- Pay attention to Merit Review criteria
- Identify several colleagues and have them comment on multiple statement drafts
- Share your application materials and the merit review criteria with reference writers
- Monitor receipt of reference letters (3 required for review)



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## LETTERS OF REFERENCE

*3 May, 2018* | Office of Nationally Competitive Awards

DR. SUZANNE McCRAY, DIRECTOR OF THE OFFICE OF NATIONALLY  
COMPETITIVE AWARDS



- Select your reference writers carefully, as they will provide important information about your potential as a leader, researcher, and educator - **familiarity with you as a person is important**
- Your selected reference writers will submit their own references; provide them all necessary information well in advance of deadline
- You may request up to 5 references. It is your responsibility to ensure three letters of reference are submitted by the published deadline in order for your application to be complete and reviewed



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# THE STUDENT APPLICATION EXPERIENCE

*3 May, 2018* | Office of Nationally Competitive Awards

STEPHANIE SANDOVAL, NSF GRADUATE RESEARCH FELLOW AND 3M  
GEM FELLOW



- NSF GRFP Website [www.nsf.gov/grfp](http://www.nsf.gov/grfp)
  - Solicitation and links
- NSF GRFP FastLane Website: [www.fastlane.nsf.gov/grfp](http://www.fastlane.nsf.gov/grfp)
  - Application, guides, announcements
- GRFP Website: [www.nsfgrfp.org](http://www.nsfgrfp.org) (includes tips for applying, GRFP Experienced Resource List)
- Phone and email
  - 866-NSF-GRFP (673-4737)
  - [info@nsfgrfp.org](mailto:info@nsfgrfp.org)



**For undergraduates:  
[stemundergrads.science.gov](http://stemundergrads.science.gov)**

**For graduates:  
[stemgradstudents.science.gov](http://stemgradstudents.science.gov)**

Questions?



Dr. El-Shenawee  
[magda@uark.edu](mailto:magda@uark.edu)

Dr. McCray  
[smccray@uark.edu](mailto:smccray@uark.edu)

Office of Nationally  
Competitive Awards  
[awards@uark.edu](mailto:awards@uark.edu)